



The  
INTERNATIONAL CONFERENCE for **NOV 16-21**  
**HIGH PERFORMANCE COMPUTING**  
ST. LOUIS, MO NETWORKING, STORAGE, & ANALYSIS

## Ignite Your Career - Resume Strategies for HPC

Marisol Gamboa



SCAN ME

Students@SC - Student Programming

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## AGENDA

- Resume vs. curriculum vitae (CV)
- Example resume & CV
- Documenting key components
- How to leverage AI
- Key takeaways

## Resume versus CV versus Portfolio

### Resume

- A concise picture of your skills and qualifications for a specific position, so length tends to be shorter and dictated by years of experience (generally 1-2 pages)
- For professional roles, use a resume to highlight your work experience, relevant skills and accomplishments concisely

### Curriculum Vitae (CV)

- A full history of your academic credentials, typically very detailed of variable length (generally 2-4 pages)
- For academic positions, use a CV to detail your research, teaching experience, publications and academic achievements

### Portfolio

- A collection of work samples, often visual, demonstrating skills and abilities, particularly useful in creative or technical fields



On average, employers take 30 seconds to review a resume and decide

## Key components

- **Resume**

- Name and contact Information
- Education
- Relevant coursework
- Skills, Tools, & Certifications
- Relevant Experience
- Technical Projects
- Additional Experience
- Publications (2+)

- **Curriculum Vitae (CV)**

- Name and contact Information
- Education
- Research Skills
- Research Interests
- Research Experience
- Professional Experience
- Publications & Presentations
- Honors/Awards
- Membership/Affiliations

## Start by setting the stage...

### Grace Hopper

New York City, NY • (919) 123-1234 • [gracehopper123@gmail.com](mailto:gracehopper123@gmail.com)

[linkedin.com/in/grace-hopper-123](https://www.linkedin.com/in/grace-hopper-123) • [github.com/gracehopper123](https://github.com/gracehopper123) • [portfolio-gracehopper123.com](https://portfolio-gracehopper123.com)

#### EDUCATION

University of California at Davis | Davis, CA

Bachelor of Science in Computer Science, Minor in Data Science | GPA: 3.8/4.0

Relevant Coursework: Data Structures, Algorithms and Analysis, Machine Learning, Computing, Calculus, Partial Differential Equations, Physics

#### SKILLS & CERTIFICATIONS

- **Programming Languages:** Python, R, SQL, JavaScript
- **Tools and Technologies:** Tableau, Git, Hadoop, Spark, AWS
- **Machine Learning:** Supervised and Unsupervised Learning, Model Evaluation, NLP
- **Certifications:** IBM Data Science Professional Certificate, Tableau Desktop Speciali

### Grace Hopper

New York City, NY

(919) 123-1234 | [gracehopper123@gmail.com](mailto:gracehopper123@gmail.com) | [github.com/gracehopper123](https://github.com/gracehopper123) | [portfolio-gracehopper123.com](https://portfolio-gracehopper123.com)

#### EDUCATION

PhD, Computer Science with concentration in Data Science

Expected May 2026

UC Davis School of Engineering, University of California at Davis

- *Dissertation:* title or topic
- *Committee:* optional, you may wish to include names of your committee members

Masters, Computer Science

August 2020

UC Davis School of Engineering, University of California at Davis

- *Master's Thesis:* title or topic
- Certifications or other pertinent information, you may also wish to include awards here (or in a later section)

Bachelors, *cum laude*, Computer Science

May 2016

UC Davis School of Engineering, University of California at Davis

#### SUMMARY OF RESEARCH SKILLS

Machine Learning • natural language processing • supervised and unsupervised learning • social network analysis • project management • deep learning • computer vision • grant and proposal writing • research methodology & design • data collection • data management • statistical analysis • oral presentations

Include relevant courses that apply to the organization or position



## Experience

Focus on the “What”, “Why” and Quantify!

		Start & End Dates
Company Name Job Title	ABC Tech Solutions   Davis, CA Data Science Intern	June 2024 - Present
	<ul style="list-style-type: none"> <li>- Developed machine learning models to predict customer churn, resulting in a 15% improvement in retention rates.</li> <li>- Conducted data analysis using Python and SQL to support business decision-making.</li> <li>- Designed data visualizations in Tableau to present findings to senior management.</li> </ul>	
	Predictive Analytics for E-commerce   Personal Project	Summer 2024
	<ul style="list-style-type: none"> <li>- Engineered a predictive model to forecast sales using historical data from an e-commerce platform.</li> <li>- Integrated Python libraries such as sci-kit-learn and pandas for data analysis and modeling.</li> </ul>	

- What did you do? (yellow)
  - Begin bullets with a skills-based action word
- Why did you do it? (green)
  - Describe tasks and responsibilities
- Quantify, provide statistics or metrics (blue)
  - Size of the dataset
  - Scaling code X times faster
- How did you do it? (bold)
  - Use keywords that demonstrate your knowledge of the field and technologies

Order experience chronologically, starting with the most recent

## Skills-based action words

COMPUTING	ENGINEERING	SCIENCE	ALL DISCIPLINES
Architected	Arbitrated	Assessed	Analyzed
Designed	Assembled	Classified	Authored/Co-Authored
Developed	Conceptualized	Collected	Automated
Delivered	Devised	Devised	Collaborated
Deployed	Engineered	Diagnosed	Coordinated
Diagnosed	Extrapolated	Evaluated	Correlated
Implemented	Motorized	Examined	Facilitated
Integrated	Predicted	Researched	Presented
Restructured	Standardized	Sampled	Scoped
Re-engineered	Validated	Surveyed	Spearheaded
Segmented	Visualized	Uncovered	Steered



## Before & After Resume

### Grace Hopper

gracehopper123@gmail.com • (919) 123-1234 • [linkedin.com/in/grace-hopper-123](https://www.linkedin.com/in/grace-hopper-123)

#### Qualifications Summary

Ability to remain levelheaded in high paced environments

Excellent communication skills

Ability to make decisions in high pressure situations

Problem solving skills

#### Education

Hopper University Expected Graduation *Fall 2024*

B.S. in Applied Computer Science, GPA 3.73

#### Experience

ITS Service Desk & Tech Support *February 2023 – September 2023*

*Hopper University*

- Answer customer phone calls
- Provide technical support to faculty and students
- Communicated with team members
- Use problem solving to resolve technical issues

Student Researcher *August 2023 - Present*

*Hopper University, School of Informatics, Computing, and Cyber Systems*

- Parallel Programming using Cuda
- Research GPUs capability
- Research advantages of CPUs and GPUs

Computing Scholar – Summer Intern *June 2024 - Present*

*Lawrence Livermore National Laboratory - Livermore Computing*

- Benchmarking with different MPIs, Wi4MPI, and Containers
- Gather and analyze data and information in support of scientific research

#### Certifications

Approved Veterinary Assistant *June 2020 – December 2027*

*National Association of Veterinary Technicians in America*

### Grace Hopper

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#### Education

Hopper University | New York City, NY

*Computer Science, Bachelor of Science* Expected Graduation | GPA 3.73 | *Fall 2024*

Relevant Courses: Data Structures, Software Engineering, Parallel Programming, Operating Systems, Discrete Mathematics, Physics

#### Technical Skills

Languages: C, CUDA, C++, Python, HTML

Developer Tools: Visual Studio Code, Git, GitHub

Operating Systems: Linux, Windows

#### Experience

Livermore Computing HPC – Summer Intern | *June 2024 - Present*

*Lawrence Livermore National Laboratory - Livermore Computing*

- Develop YAML scripts to run benchmarks using AMD CPUs and GPUs on large HPC systems resulting in confirmation of negligible overhead
- Benchmarked different MPIs, Wi4MPI, and Containers with Pavilion testing framework and Flux to observe any potential overhead
- Analyze gathered data in support of scientific research, report findings to mentors during weekly meetings

Undergraduate Student Researcher | *August 2023 - Present*

*Hopper - School of Informatics, Computing, and Cyber Systems*

- Develop a density peaks clustering algorithm to run parallel using NVIDIA GPUs, CUDA, CPUs, and C
- Research the advantages and capabilities of both GPUs & CPUs through the development of parallel programs
- Present progress to peers and supervisors in meetings, providing evidence to support findings

ITS Service Desk & Tech Support | *February 2023 – September 2023*

*Hopper University*

- Technical support for faculty, students, and affiliates for products such as Microsoft 365, Peoplesoft, Wi-Fi Services, and Canvas
- Diagnosed and resolved client's technological problems via phone and web support, communicated and documented findings for team members and supervisors
- Documented client phone calls, technology issues, and record of incidents on Service Now

Before and after applying the information, we have discussed thus far

## AI for faster, easier, and more effective resume or CV

Step	How to Use AI	Example Tools/Methods
1	<b>Resume Templates &amp; Builders</b>	Use AI-powered resume builders (e.g., Rezi, Resume.io, Zety) to generate professional templates and layouts.
2	<b>Content Suggestions</b>	Input your job title and experience; AI suggests bullet points and phrasing tailored to your field.
3	<b>Keyword Optimization</b>	AI scans job descriptions and helps you include relevant keywords to pass Applicant Tracking Systems (ATS).
4	<b>Grammar &amp; Clarity Checks</b>	AI tools (like Grammarly or Quillbot) review your resume for grammar, clarity, and conciseness.
5	<b>Personalization</b>	AI can tailor your resume for specific jobs by analyzing job postings and customizing your skills and achievements.
6	<b>Feedback &amp; Scoring</b>	Some platforms offer instant feedback and score your resume for effectiveness, readability, and ATS compatibility.

### Tips

- Always review and personalize AI-generated content to ensure accuracy
- Use AI as a guide but let your unique experiences and achievements shine through

# AI enhanced job descriptions

## BEFORE

### Livermore Computing HPC – Summer Intern | June 2024 - Present

Lawrence Livermore National Laboratory - Livermore Computing

- Develop YAML scripts to run benchmarks using AMD CPUs and GPUs on large HPC systems resulting in confirmation of negligible overhead
- Benchmarked different MPIs, Wi4MPI, and Containers with Pavilion testing framework and Flux to observe any potential overhead
- Analyze gathered data in support of scientific research, report findings to mentors during weekly meetings

### Undergraduate Student Researcher | August 2023 - Present

Hopper - School of Informatics, Computing, and Cyber Systems

- Develop a density peaks clustering algorithm to run parallel using NVIDIA GPUs, CUDA, CPUs, and C
- Research the advantages and capabilities of both GPUs & CPUs through the development of parallel programs
- Present progress to peers and supervisors in meetings, providing evidence to support findings

### ITS Service Desk & Tech Support | February 2023 – September 2023

Hopper University

- Technical support for faculty, students, and affiliates for products such as Microsoft 365, Peoplesoft, Wi-Fi Services, and Canvas
- Diagnosed and resolved client's technological problems via phone and web support, communicated and documented findings for team members and supervisors
- Documented client phone calls, technology issues, and record of incidents on Service Now

## AFTER

### Livermore Computing HPC – Summer Intern

Lawrence Livermore National Laboratory – Livermore Computing

June 2024 – Present

- Developed and optimized YAML scripts to automate benchmarking workflows for AMD CPUs and GPUs on large-scale HPC systems, confirming minimal system overhead.
- Conducted comprehensive performance benchmarking of multiple MPI implementations, Wi4MPI, and containerized environments using the Pavilion testing framework and Flux resource manager to identify and quantify potential overheads.
- Analyzed and interpreted performance data to support ongoing scientific research projects; presented key findings and actionable insights to mentors during weekly progress meetings.

### Undergraduate Student Researcher

Hopper - School of Informatics, Computing, and Cyber Systems

August 2023 – Present

- Designed and implemented a parallelized density peaks clustering algorithm utilizing NVIDIA GPUs (CUDA), CPUs, and C to accelerate data analysis workflows.
- Investigated and compared the performance benefits and computational capabilities of GPUs versus CPUs through the development and evaluation of parallel programming solutions.
- Communicated research progress and technical results to peers and supervisors in regular meetings, delivering clear evidence and data-driven insights to support findings.

### ITS Service Desk & Tech Support

Hopper University

February 2023 – September 2023

- Provided technical support to faculty, students, and affiliates for a range of platforms including Microsoft 365, Peoplesoft, Wi-Fi services, and Canvas.
- Diagnosed and resolved technical issues via phone and web support; clearly communicated solutions and documented troubleshooting steps for team collaboration and supervisor review.
- Accurately recorded client interactions, technology issues, and incident resolutions using ServiceNow, ensuring detailed and organized case management.



# AI enhanced resume BEFORE

Grace Hopper

New York City, NY • (919) 123-1234 • [gracehopper123@gmail.com](mailto:gracehopper123@gmail.com)

[linkedin.com/in/grace-hopper-123](https://www.linkedin.com/in/grace-hopper-123) • [github.com/gracehopper123](https://github.com/gracehopper123) • [portfolio-gracehopper123.com](https://portfolio-gracehopper123.com)

Education

Hopper University | New York City, NY

Computer Science, Bachelor of Science Expected Graduation | GPA 3.73 | Fall 2024

Relevant Courses: Data Structures, Software Engineering, Parallel Programming, Operating Systems, Mathematics, Physics

Technical Skills

Languages: C, CUDA, C++, Python, HTML

Developer Tools: Visual Studio Code, Git, GitHub

Operating Systems: Linux, Windows

Experience

Livermore Computing HPC – Summer Intern | June 2024 - Present

Lawrence Livermore National Laboratory - Livermore Computing

- Developed YAML scripts to run benchmarks using AMD CPUs and GPUs on large HPC systems, confirming negligible overhead.
- Benchmarked different MPIs, Wi4MPI, and Containers with Pavilion testing framework to assess system performance.
- Analyzed gathered data in support of scientific research, report findings to mentors during weekly meetings.

Undergraduate Student Researcher | August 2023 - Present

Hopper - School of Informatics, Computing, and Cyber Systems

- Developed a density peaks clustering algorithm to run parallel using NVIDIA GPUs, CPUs (C).
- Investigated comparative advantages of GPUs and CPUs through parallel program development.
- Presented research progress and results to peers and supervisors, supporting conclusions with data.

ITS Service Desk & Tech Support | February 2023 – September 2023

Hopper University

- Provided technical support for faculty, students, and affiliates for products such as Microsoft 365, Peoplesoft, Wi-Fi, and Canvas.
- Diagnosed and resolved client's technological problems via phone and web support; documented solutions for team knowledge base.
- Recorded and tracked incidents and resolutions using ServiceNow.

## AFTER

Certainly! Here's a revised version of your resume for clarity, conciseness, and impact. I've improved formatting, made action verbs more consistent, and clarified some points for better readability.

Grace Hopper

New York City, NY • (919) 123-1234 • [gracehopper123@gmail.com](mailto:gracehopper123@gmail.com)

[linkedin.com/in/grace-hopper-123](https://www.linkedin.com/in/grace-hopper-123) • [github.com/gracehopper123](https://github.com/gracehopper123) • [portfolio-gracehopper123.com](https://portfolio-gracehopper123.com)

Education

Hopper University, New York City, NY

Bachelor of Science in Computer Science, Expected Fall 2024

GPA: 3.73

Relevant Coursework: Data Structures, Software Engineering, Parallel Programming, Operating Systems, Discrete Mathematics, Physics

Technical Skills

Languages: C, C++, CUDA, Python, HTML

Developer Tools: Visual Studio Code, Git, GitHub

Operating Systems: Linux, Windows

Experience

Summer Intern, Livermore Computing HPC

Lawrence Livermore National Laboratory | June 2024 – Present

- Developed YAML scripts to automate benchmarking on large HPC systems using AMD CPUs and GPUs, confirming negligible overhead.
- Benchmarked various MPIs, Wi4MPI, and containers with Pavilion testing framework and Flux to assess system performance.
- Analyzed performance data and presented findings to mentors during weekly meetings.

Undergraduate Student Researcher

Hopper School of Informatics, Computing, and Cyber Systems | August 2023 – Present

- Designed and implemented a parallel density peaks clustering algorithm using NVIDIA GPUs (CUDA) and CPUs (C).
- Investigated comparative advantages of GPUs and CPUs through parallel program development.
- Presented research progress and results to peers and supervisors, supporting conclusions with data.

ITS Service Desk & Tech Support

Hopper University | February 2023 – September 2023

- Provided technical support for faculty, students, and affiliates on Microsoft 365, Peoplesoft, Wi-Fi, and Canvas.
- Diagnosed and resolved technical issues via phone and web support; documented solutions for team knowledge base.
- Recorded and tracked incidents and resolutions using ServiceNow.

Let me know if you want to further tailor this for a specific job or add a summary/objective section!



## AI Customizations

### Summary statement

#### Summary

Detail-oriented and motivated Computer Science student with strong programming skills in C, C++, Python, and CUDA. Experienced in software development, parallel programming, and technical support through internships and research roles. Adept at analyzing complex problems, optimizing code for performance, and communicating technical concepts. Eager to contribute as a software developer and grow within a collaborative engineering team.

### Tailored for a software developer

#### Projects

##### Portfolio Website:

Developed a personal portfolio site using HTML, CSS, and JavaScript to showcase projects and technical skills.

##### GitHub:

Contributed to several open-source projects; see [github.com/gracehopper123](https://github.com/gracehopper123) for code samples.

## Key Takeaways

- Clearly highlight your strengths, achievements, and relevant experience on the first page.
- Tailor your resume for each job, using keywords and terminology specific to your field.
- Use a clear, concise format with standard fonts; avoid photos, symbols, and text boxes.
- Name your resume file professionally, including your name (e.g., MGamboa\_Resume.doc).
- Be prepared to discuss and elaborate on any details listed in your resume.

## Interview Prep

### Before the interview:

- ✓ Research the job posting and company
- ✓ Review your resume and job description side-by-side
- ✓ Prepare metrics stats, or concrete examples to demonstrate impact
- ✓ Prepare for situational and technical problem-solving questions
- ✓ Practice articulating your value using action words and technical language
- ✓ Participate in 2-3 mock interviews
- ✓ Develop 2-3 post interview questions to ask the interviewer to demonstrate engagement
- ✓ Confirm dress code with recruiter or HR contact
  - Choose attire that matches the company's culture
  - When in doubt, business casual is safe for technical roles

### Day of Interview:

- ✓ Present yourself professionally and neatly, and choose subtle fragrances (or no fragrances) and simple accessories



## RESUME CHECKLIST

### 1. Contact Information

- ✓ Include first and last name
- ✓ Location (city and state only)
- ✓ Phone number
- ✓ Email address
- ✓ LinkedIn profile, GitHub, Portfolio (if applicable)

### 2. Education

- ✓ Degrees listed with date completed (most recent first)
- ✓ School(s) listed
- ✓ Year completed or estimated date of completion
- ✓ GPA included (if proud of it)
- ✓ Relevant coursework listed (if applicable)

### 3. Skills and Tools

- ✓ List technical skills grouped by category  
Languages, Frameworks, Tools, Certifications, etc.
- ✓ List from strongest to weakest

### 4. Experience

- ✓ Focus on experience relevant to the job posting
- ✓ Follow consistent description structure  
What → Why → Quantify
- ✓ What: bullets begin with skills-based action word
- ✓ Why: tasks and responsibilities described
- ✓ Quantify: achievements (stats/metrics, dataset size, code scaling, etc.)
- ✓ Include programming languages and technologies used
- ✓ Highlight your personal contributions distinctly

## RESUME CHECKLIST

### 5. Leveraging AI

- ✓ Always review and personalize AI-generated content to ensure accuracy
- ✓ Use AI as a guide but let your unique experiences and achievements shine through

### 6. Overall

- ✓ Highlight strengths, achievements, and relevant experience are on the first page
- ✓ Tailored for each job with field-specific keywords
- ✓ Clear, concise format with standard fonts; no photos, symbols, or text boxes
- ✓ Professional file name (e.g., MGamboa\_Resume.doc)

### 7. Review Job Posting

- ✓ Job posting reviewed for key skills, qualifications, and experiences
- ✓ Resume updated to highlight relevant achievements
- ✓ Use similar language and keywords from the job posting

### 8. Resources

- ✓ Resume and interview tips  
<https://www.llnl.gov/join-our-team/careers/events-resources>
- ✓ Example resume and CV:  
<https://cs.unc.edu/experience/career/tech-resume-samples/>
- ✓ Text editing tools (TexMaker) to stylize resume/CV:  
[Overleaf, Online LaTeX Editor](#)
- ✓ Text editing tool for stylizing resume: <https://www.overleaf.com>

Questions?



## RESUME CHECKLIST AND RESOURCES

<https://students-sc.github.io/workshops>



## Backup Slides

# AI additional enhancements

Absolutely! Here's your resume tailored for a software developer position. I've emphasized your programming, development, and problem-solving skills, and highlighted relevant experiences and coursework.

---

**Grace Hopper**  
New York City, NY • (919) 123-1234 • [gracehopper123@gmail.com](mailto:gracehopper123@gmail.com)  
[linkedin.com/in/grace-hopper-123](https://www.linkedin.com/in/grace-hopper-123) • [github.com/gracehopper123](https://github.com/gracehopper123) • [portfolio-gracehopper123.com](https://portfolio-gracehopper123.com)

---

## Education

**Hopper University**, New York City, NY  
Bachelor of Science in Computer Science, Expected Fall 2024  
GPA: 3.73  
**Relevant Coursework:** Data Structures, Software Engineering, Parallel Programming, Operating Systems, Discrete Mathematics

---

## Technical Skills

**Languages:** C, C++, CUDA, Python, HTML  
**Developer Tools:** Visual Studio Code, Git, GitHub  
**Operating Systems:** Linux, Windows

---

## Experience

**Software Development Intern, Livermore Computing HPC**  
Lawrence Livermore National Laboratory | June 2024 – Present

- Developed and maintained automation scripts in YAML to benchmark and optimize large-scale HPC systems using AMD CPUs and GPUs.
- Benchmarked and compared performance of MPIs, Wi4MPI, and containerized applications using Pavilion and Flux frameworks.
- Analyzed performance data and communicated technical findings to mentors and team members.

**Undergraduate Software Researcher**  
Hopper School of Informatics, Computing, and Cyber Systems | August 2023 – Present

- Designed and implemented a parallel clustering algorithm in C and CUDA, leveraging NVIDIA GPUs for high-performance data analysis.
- Researched and optimized parallel programming techniques for both CPU and GPU architectures.
- Presented technical progress and results to research teams, supporting recommendations with quantitative data.

**ITS Service Desk & Technical Support**  
Hopper University | February 2023 – September 2023

- Provided software troubleshooting and technical support for campus-wide systems including Microsoft 365, Peoplesoft, and Canvas.
- Diagnosed, resolved, and documented software and hardware issues, improving team efficiency and client satisfaction.
- Utilized ServiceNow to track and manage technical incidents.

---

## Projects

**Portfolio Website:**  
Developed a personal portfolio site using HTML, CSS, and JavaScript to showcase projects and technical skills.

**GitHub:**  
Contributed to several open-source projects; see [github.com/gracehopper123](https://github.com/gracehopper123) for code samples.

---

Let me know if you'd like to add a summary statement or further tailor your resume for a specific company or software development focus!

Tailored  
for a  
software  
developer

Added a  
summary  
statement

Certainly! Here's your resume with a summary statement added at the top. The summary highlights your technical skills, academic background, and hands-on experience relevant to a software developer position.

---

**Grace Hopper**  
New York City, NY • (919) 123-1234 • [gracehopper123@gmail.com](mailto:gracehopper123@gmail.com)  
[linkedin.com/in/grace-hopper-123](https://www.linkedin.com/in/grace-hopper-123) • [github.com/gracehopper123](https://github.com/gracehopper123) • [portfolio-gracehopper123.com](https://portfolio-gracehopper123.com)

---

## Summary

Detail-oriented and motivated Computer Science student with strong programming skills in C, C++, Python, and CUDA. Experienced in software development, parallel programming, and technical support through internships and research roles. Adept at analyzing complex problems, optimizing code for performance, and communicating technical concepts. Eager to contribute as a software developer and grow within a collaborative engineering team.

---

## Education

**Hopper University**, New York City, NY  
Bachelor of Science in Computer Science, Expected Fall 2024  
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## Technical Skills

**Languages:** C, C++, CUDA, Python, HTML  
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## Experience

**Software Development Intern, Livermore Computing HPC**  
Lawrence Livermore National Laboratory | June 2024 – Present

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- Analyzed performance data and communicated technical findings to mentors and team members.

**Undergraduate Software Researcher**  
Hopper School of Informatics, Computing, and Cyber Systems | August 2023 – Present

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## Projects

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Contributed to several open-source projects; see [github.com/gracehopper123](https://github.com/gracehopper123) for code samples.

---

Let me know if you'd like to further customize your summary or any other section!



## Examples: Experience

**High Performance Computing Intern**, Lawrence Livermore National Laboratory, June 2024 – August 2024

- Developed YAML scripts to run benchmarks using AMD CPUs and GPUs on large HPC systems resulting in confirmation of negligible overhead
- Benchmarked different MPIs, Wi4MPI, and Containers with Pavilion testing framework and Flux to observe any potential overhead
- Analyze gathered data in support of scientific research, reported findings to mentors during weekly meetings

**Service Desk & Tech Support**, University, February 2023 – September 2023

- Technical support for faculty, students, and affiliates for products such as Microsoft 365, Peoplesoft, Wi-Fi Services, and Canvas
- Diagnosed and resolved client's technological problems via phone and web support, communicated findings to team members and managers as needed

**Computing Intern**, Lawrence Livermore National Laboratory, June 2020 – September 2020

- Researched and tested three reporting engines and generated reports for data stored in JSON files.
- Developed Python script to parse and analyze JSON files, each containing 150+ dataset objects.
- Presented findings and recommendation for implementation to 30+ members of the team and management.

**Cybersecurity Intern**, Lawrence Livermore National Laboratory, May – August 2024

- Developed distributed software in C++ implementing reliable and scalable computational mathematics solvers
- Collaborated with team members through individual and team meetings and code review in Gitlab
- Presented results and impact at the Summer Student Poster Symposium to experts in the field.

## Examples: Experience Cont.

Research Scientist, University,

June 2018 - December 2018

- Analyzed correlation between walking and eye movement in MATLAB and Python with Sklearn
- Spearheaded the automation of data collection, cleaning and filtering for multiple experiments in Python
- Trained classifier to predict type of landmark associated with particular eye movement in Pytorch
- Co-Authored paper on the methodology applied, and the data automation results and benefits.

Undergraduate Student Researcher, School of Computing, and Cyber Systems,

August 2023 – May 2024

- Developed density peaks clustering algorithm to run parallel using NVIDIA GPUs, CUDA, CPUs, and C
- Researched the advantages and capabilities of both GPUs & CPUs through the development of parallel programs
- Presented progress to peers during meetings, providing evidence in support of findings

Teaching Assistant, University,

Summer, Fall 2023 Winter, Spring, Fall 2024

- Assisted 450+ person linear algebra and multivariable calculus and mathematical foundations of
- computing courses
- Experience in course leadership, lecturing and teaching, and leading discussion sections



## Examples: Projects

### Double Ratchet Chat Client, Cryptography | Personal Project

Winter 2022

- Implemented a secure and efficient end-to-end encrypted chat client using the Double Ratchet Algorithm in JavaScript using the SubtleCrypto library.

### Predictive Analytics for E-commerce | Personal Project

Spring 2023

- Engineered a predictive model to forecast sales using historical data from an e-commerce platform.
- Integrated Python libraries sci-kit-learn and pandas for data analysis and modeling.

### Social Media Sentiment Analysis | Course Project

Spring 2024

- Analyzed Meta data to gauge public sentiment on various topics using natural language processing techniques.
- Implemented sentiment analysis models using NLTK and TextBlob in Python, visualized the results with Matplotlib.

### Java and Swing, Software Engineering | Final Project

Winter 2023

- Designed and developed a synchronous and asynchronous multithreaded messaging application over TCP/IP network protocols in Java and Swing.
- Implemented a GUI and login/password security system to allow multiple user roles to view different directory and user data, including a log of the message contents, time, date, sender, and recipients.



**TBD**

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