

EDUCATION

University of Vermont, Burlington, VT

- Accelerated M.S. in Computer Science (May 2025), **GPA: 3.84**
- B.S. in Computer Science (May 2024), **GPA 3.89**  
Ranked: 29 / 324  
Dean's List: All Semesters

**Relevant Coursework:** Data Structures and Algorithms, Algorithm Design and Analysis, Operating Systems, Software Engineering, Evolutionary Robotics, Machine Learning, Computer Organization and Architecture, Network Security and Cryptography

TECHNICAL SKILLS

**Programming Languages:** Python (Expert), C/C++ (Expert), Java (Proficient), C#  
**Frameworks & Tools:** Tensorflow, PyTorch, Flask, RESTful APIs, Git (Github, Gitlab), CI/CD  
**Web:** JavaScript, HTML5, CSS3, Bootstrap  
**Cloud & Database:** AWS, Firebase, MySQL, SQLite, SQL server  
**Operating System:** Windows Systems  
**Other:** Agile Development, Software Testing, Object-Oriented Design

WORK EXPERIENCE

Graduate Teacher Assistantship, University of Vermont, USA August 2024 - May 2025

- Designed an Introductory Database Course curriculum, emphasizing SQL fundamentals and database design
- Provided code reviews and debugging support for student projects in Java and Python, improving code quality and reducing errors by 30%
- Mentored students in software development best practices, increasing project completion rates by 25%

Undergraduate Research Assistant, University of Vermont, USA November 2023 - May 2024

- Designed multi-party computation (MPC) algorithms, leveraging privacy measures in distributed systems to support collaborative research.
- Contributed 10K+ lines of code via Git and resolved technical challenges to advance research and improve project outcomes.

Information Technology Intern , Burlington Electric Department, Vermont, USA March 2024 - June 2024

- Developed Python REST web services and automated data upload scripts for the 2050 Energy Plan, improving data processing efficiency by 40%
- Designed and implemented security training for 50+ employees, enhancing overall company security posture
- Created technical documentation for system maintenance, reducing troubleshooting time by 25%
- Utilized technologies including Python, MySQL, and PowerShell in a collaborative team environment

PROJECT WORK/ASSIGNMENTS

Differentially Private Quantile Algorithms Analysis| Python, Algorithm Design An September 2024 - Present

- Conducted comparative research on evaluating runtime, accuracy, and efficiency of differentially private quantile algorithms
- Benchmarked multiple algorithms, revealing performance differences and optimizing usage cases overlooked in previous studies
- Provided actionable insights to aid in algorithm selection based on use case and performance trade-offs

Food Audio Classification Model | Python, Flask, Pytorch September 2024 - December 2024

- Developed a machine learning model for food audio classification to complement a visual recognition system
- Leveraged PyTorch to extract key audio features, achieving 85% accuracy in food sound classification
- Implemented CI/CD pipeline for iterative testing and continuous integration, reducing classification errors by 20% and accelerating model deployment

AI-Powered Chess Game | Python, Git, Agile Software Development January 2024 - May 2024

- Created a chess game with AI-driven decision-making using the minimax algorithm, enhancing gameplay complexity
- Designed a scalable and maintainable codebase using object-oriented principles, optimizing long-term development and feature expansion
- Led an agile team, utilizing Git for version control and iterative development to ensure seamless integration and rapid deployment

Real-time Task Management App | Swift, Google API, Firebase, User-Interace Development September 2023 - December 2023

- Led a 4-person agile team to develop a full-stack app with Firebase Authentication and Cloud Messaging for roommate/household organization
- Integrated cloud services for real-time sync and notifications, achieving 95% test coverage with unit and integration testing
- Implemented secure user authentication and real-time updates, resulting in a highly responsive and reliable application

ACADEMIC AWARDS

- Computer Science Special Recognition Award** | Spring 2025, Spring 2024  
Awarded for exceptional commitment to student success and departmental excellence, serving as a Teaching Assistant in all core courses and providing ongoing academic and logistical support to faculty and peers

VOLUNTEER EXPERIENCE

FIRST Robotics Volunteer Coordinator & Judge | DEI Committee Student Representative | Girls Who Code Volunteer