Mish Wilson

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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

Robotics/ML: Evolutionary Robotics, Machine Learning, Adversarial Machine Learning
Systems: Operating Systems, Computer Organization and Architecture
Core CS: Data Structures and Algorithms, Software Engineering

TECHNICAL SKILLS

Programming Languages: Python (Expert), C/C++ (Expert), Java (Proficient), C# Robotics &
Automation: Computer Vision, Object Recognition, PyTorch, TensorFlow
Systems & Architecture: Multi-threading, Distributed Systems, Software Architecture
Development & Tools: Git (Github, Gitlab), CI/CD, Unit Testing, Agile/Scrum
Cloud & Infrastructure: AWS, RESTful APIs, Object-Oriented Design

WORK EXPERIENCE

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

- Drove customer-centric improvements in course curriculum design, resulting in 25% higher project completion rate
- Provided debugging support for Java and Python, leading to 30% reduction in student code errors
- Mentored 100+ students in software development best practices, demonstrating strong leadership skills

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

- Owned end-to-end development of Python REST services, improving data processing efficiency by 40%
- Simplified complex technical concepts into accessible training materials for 50+ employees
- Created technical documentation for system maintenance, reducing troubleshooting time by 25%
- Utilized technologies including Python, MySQL, and PowerShell in a collaborative team environment

RELEVANT PROJECTS

Differentially Private Quantile Algorithms Benchmark| *Joe Near* | *Python, Algorithm Design Analysis* **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

Evolutionary Parkour Robot | *Python, PyBullet, Pyrosim* **January 2025- May 2025**

- Designed and simulated a bipedal robot capable of jumping from one elevated platform to another using PyBullet and Pyrosim
- Implemented ray-based sensors, spring dynamics, and neural network control to enable adaptive decision-making
- Applied evolutionary algorithms for control, to develop and test complex robotic behaviors in the simulated environment

AI Chess Game | *C#, Unity* **January 2024 - May 2024**

- Created a chess game with AI-driven decision-making using the minimax algorithm, enhancing game play complexity
- Designed a scalable and maintainable code base 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

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

LEADERSHIP & IMPACT

STEM Ambassador, *University of Vermont, USA* **September 2021 - May 2025**

- Led technical workshops for 300+ students across 30 schools, focusing on Robotics and Programming fundamentals.
- Coordinated FIRST Robotics competitions, demonstrating commitment to building future tech leaders
- Achieved a 95% satisfaction rate using tools such as Lego EV3 Classroom and Java

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