

EDUCATION

University of Illinois Urbana-Champaign

Expected May 2025

*Bachelor of Science in Computer Engineering and Applied Statistics***GPA: 4.0/4.0**

- Relevant Coursework: Data Structures Honors, Machine Learning, Linear Algebra, Systems Programming Honors

EXPERIENCE

IBM Research

Champaign, IL

Artificial Intelligence Researcher - Hybrid Cloud & AI Group

August 2023 – Present

- Optimized path-planning algorithm for high-dimensional robotic arms by leveraging convolutional neural networks
- Generated 10,000 workspaces & configuration spaces by engineering robotic arm graphical simulator using Python
- Utilized Multi-Tenant Machine Learning to design models and enable upto 98% accurate operability across stacks
- Improved the GUI using gtkmm to enhance the software readability and support upto 10x modifications to output

NBC Universal

New York City, NY

Software Engineer Intern - PeacockTV Client-Side Team

August 2023 – Present

- Drove 95.5% reduction in payment-config issues for 5% userbase on PeacockTV Plus model; est. \$23,000/yr profit
- Secured 1.46% increase to meet 99% reliability goal for PeacockTV User-Side Internal Updating tool over Q3 2023
- Eliminated \$48,000/yr infra spend on daily tool support by launching multi-platform automated repair mechanism
- Slashed dev issue resolution time by 54% via automated Jira file check and new standardized reporting procedure

Forcepoint

Dallas, TX

Software Engineer Intern - Cross-domain TTC Team

May 2023 – August 2023

- Refined TTC-3.1 pipelines for RHEL8-RGB union; broadened Jira testing in C++/Linux for TTC-3.2 conversion
- Automated 85% production tests on MIDI and OpenRGB API; leveraged DBus signaling & udev kerneling on 3.1
- Wrote root-privilege-wrappers for SELinux machines; built Ansible Playbooks for TTC-3.1/2 platform monitoring
- Crafted SELinux policies for user classified access; deployed RPM packages for RHEL8-RGB vulnerability scanning

AMD

Champaign, IL

Machine Learning Researcher - Reinforcement Learning Research Team

September 2022 – April 2023

- Built a ML Reinforcement Learning model using KNN/SARSA achieving optimal charging w/88+% battery health
- Reduced integration delay from 1 week to 1 day by creating automated pipeline to notify developers of board issues
- Designed a simulation build for synthetic data generation helping reduce battery degradation by 21% over 675 tests
- Ran situational tests on board & CPU data using Behave test framework to test & optimize algorithm suggestions

LEADERSHIP

Undergraduate Teaching Assistant: STAT107, ECE 110, CS124, MATH257

January 2023 - Present

- Guided bi-weekly Python/Java labs of 150+ students; Debugged technical issues: Git, VS-Code, IDE and NumPy
- Organized weekly office hours for 400+ students, wrote exam questions in PrairieLearn™ HTML/JSON Database

Technical Lead, National Organization of Business and Engineering (NOBE)

August 2022 - March 2023

- Led bi-weekly club meetings to mentor 50+ students in web development using React, MongoDB, and JavaScript
- Designed and built a Customizable Engineering Scheduler App reaching 850+ live users w/ 1550+ active signups

PROJECTS

Dystinction — Free-for-all Dyslexia Assessment Model | *React.js, Objective-C, Swift, SQL, Git* June 2023

- Created a secure Dyslexia detection iOS App for 7500+ students offering free patented testing and instant results
- Awarded Congressional Commendation from TX-03 Rep. for immense impact within the education support sector

TECHNICAL SKILLS

Languages & Frameworks: Java, Python, JavaScript, C/C++, C#, HTML/CSS, Kotlin, CUDA, Objective-C, SQL
Libraries: NumPy, Tensorflow, Django, Matplotlib, ScikitLearn, pandas, TailwindCSS, SciPy, PyTorch, Plotly, OpenCV
Involvement: James Scholar, IEEE Corporate Director, PULSE Web-Dev, MATH257, CS124, ECE110, STAT107 CA
Certifications: IBM Accelerate Hardware Development, DISCOVERY CS Data Science Analytics, Java SE 8 1Z0-808
Developer Tools: Git, .NET, Microsoft Azure, C#, Amazon Web Services (Lambda, DynamoDB, S3), Microservices, Jenkins, Postman, Docker, Kubernetes, MySQL, RHEL8, CI/CD, Agile, Atlassian Tools (Jira, Confluence, BitBucket)