Benjamin E. Jordan

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Education Cornell University

[Expected Dec 2023]

M.Eng. in Computer Science - Concentration in Machine Learning & Systems

Rochester Institute of Technology

[Graduated Dec 2022]

B.S. in Computer Science - Minor in Music and Technology - 3.65 GPA (3.94 avg. during second half of degree)

Skills

Programming: Python, C/C++, C#, Java, Javascript, NumPy, PyTorch, Angular, SQL

Other Skills: Git, Linux, Unit Testing, Agile Development, LaTeX

Experience

Machine Learning Intern @ KLA

[May 2023 - Present]

- Researched and implemented ML solutions for semiconductor defect detection in the zeta
- Leveraged transfer learning with vision transformers to improve feature extraction algos
- Proposed a 2-stage cascade of binary (whether a defect exists) and multiclass (what kind of defect) classification models to improve prediction accuracy, efficiency, and interpretability
- Collected and worked with raw image data

Research Software Developer @ RIT

[Aug 2022 - Jan 2023]

- Hired part-time by faculty to develop software for spatial audio research during the semester
- Independently created a program for collecting data on how users interpret audio
- Technologies used include Three.js, Angular, and Typescript

Software Engineering Intern @ Carestream

[May 2022 - Aug 2022]

- Developed and maintained C# back-end functionality in Carestream's ImageView X-Ray software
- Solved major issue allowing users to take long-length x-rays with incorrect settings
- Worked as a member of an agile software development team

Research Software Developer @ RIT

[June 2020 - Aug 2021]

- Independently designed and implemented software for a speech perception and cochlear implant research project with RIT and UIowa faculty
- Created 8 listening test modules using Javascript and the Web Audio API
- Participated in weekly team meetings where software progress was presented
- Data collected from the program was used to produce multiple research publications

Coursework ML:

Adv. Machine Learning, Reinforcement Learning, Artificial Intelligence, Natural Language Processing, Large Scale Machine Learning, Mathematical Foundations of Machine Learning, Artificial Intelligence

Sys: Operating Systems, Networking, Cryptography, Parallel Computing, Distributed Systems, Adv. Computer Architecture

Activities RIT Varsity Track and Field (15-20 hrs / week commitment)

[March 2019 - Dec 2022]

RIT AI Club Member

[September 2022 - Dec 2022]

Awards RIT Presidential Merit Scholarship

Liberty League All-Academic Team

Projects DSLabs

- Created a distributed key-value store using the DSLabs Java framework
- Implemented Paxos for replica group consensus, 2PC to achieve atomic commit for distributed transactions, and dynamic load balancing of shards to handle server reconfiguration

EQ Audio Effect

- Wrote a four filter parametric equalizer plugin using the JUCE C++ framework
- Successfully used the EQ inside personal music making software

Graph Neural Network Research Project

- Designed, implemented, presented, and reported an experiment on the graph sage architecture
- Proposed that using mean-pooling aggregation for the initial layers of our model would improve performance compared to using only max-pooling for all layers