Benjamin E. Jordan

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LinkedIn | Portfolio Website | GitHub

Education

Cornell University [Expected Dec 2023]
M.Eng. in Computer Science - Concentration in Machine Learning & Computer 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 2nd half of degree]

Skills

Programming: C++, C#, Java, Python, Javascript, NumPy, PyTorch, Scikit-Learn, Angular, SQL, CUDA
Other Skills: Git, Linux, Unit Testing, Agile Development, LaTeX

Experience

Machine Learning Intern @ KLA [May 2023 - Aug 2023]
- Independently researched and implemented solutions for semiconductor defect detection
- Used transfer learning with vision transformers for robust feature extraction
- Proposed 2-stage cascade to improve accuracy, efficiency, and interpretability
- Used PyTorch 2.0's JIT compiler to optimize training and inference run-time
- Presented project during poster board session and was invited to give multiple technical talks

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
- Gained professional experience with unit testing, agile, version control, large codebases, etc

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

Research Software Developer @ RIT [June 2020 - Aug 2021]
- Independently developed software for cochlear implant research project with RIT & 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

Relevant Coursework

ML: Large Scale Machine Learning, Machine Learning Theory, AI Seminar, Reinforcement Learning, Machine Learning, Artificial Intelligence, Natural Language Processing, Computer Vision
Sys: Distributed Systems, Parallel Computing, Computer Architecture, Operating Systems, Networks
Math: Graph Theory, Matrix Computations

Activities

RIT Varsity Track and Field (15-20 hrs / week commitment) [March 2019 - Dec 2022]
RIT AI Club Member [September 2022 - Dec 2022]
Private CS Tutoring

Awards

RIT Presidential Merit Scholarship
Liberty League All-Academic Team

Projects

Distributed Systems Labs & Framework [DSLabs]
- Created a spanner-esque distributed key-value store in Java
- 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 plugin 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