# Benjamin E. Jordan

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**Education** Cornell University

[Expected Dec 2023]

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

**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 **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, Computer Architecture, Operating Systems, Networks, Parallel Computing

Math: Graph Theory, Matrix Computations

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

[March 2019 - Dec 2022]

[September 2022 - Dec 2022]

RIT AI Club Member 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