

# Mingyang(Jerry) Li

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## EDUCATION

Davidson College, Davidson, NC

Graduation date: [May 2025](#)

Degree: Bachelor of Science in Computer Science, Bachelor of Science in Mathematic

Major GPA: 3.98 / 4.0

Relevant Coursework: Algorithm, Computer Organization, Data Structures, Data Science I, Game Development, Abstract Algebra, Calculus, Number Theory, Discrete Structure, Differential Equations, Linear Algebra

## Work Experience

[Facility for Rare Isotope Beams \(FRIB\)](#), Davidson, NC

May 2022 – Aug 2022, May 2023 - Present

Machine Learning Researcher

- Cleaned and analyzed raw data from NSCL's Active-target time projection chamber utilizing **Python** packages such as **Matplotlib**, **Numpy**, and **Pandas** to derive meaningful insights.
- Developed a cutting-edge **PointNet++ deep learning network** using **TensorFlow** to accurately classify alpha-proton events from diverse nuclear reactions. Achieved an outstanding **90% improvement** in the model's f-1 score compared to the previous iteration developed by the team in summer 2021.
- Employed **PyTorch** to adapt and enhance a **Diffusion Probabilistic Model**, enabling unpaired image translation and fine-tuning the autoencoder on both simulated and experimental data. Achieved an impressive precision rate of **85%** in decoding experimental data.

**Skills:** Python, PyTorch, Tensorflow, Jupyter Notebook, Machine Learning (Deep Learning), Data Analyze

**Tecoford Guangzhou (Authorized AVEVA Distributor)**, Remote

Aug 2022 – May 2023

Engineer Intern

- Constructed robust **random forest machine learning models** in **Python** to analyze and regulate the column of steam in the cut-tobacco dryer, contributing to improved control and optimization of the drying process.
- Developed sophisticated **multivariable differential equation models** that accurately forecasted the volume, temperature, and humidity of tobacco in the actual tobacco manufacturing line, enhanced operational efficiency and facilitated informed decision-making.

**Skills:** Java, Python, Mathematical Modeling, Machine Learning, Problem Solving, Industrial Automation

[Competitive Coding at Davidson \(C-CAD\)](#), Davidson, NC

Jan 2022 – May 2023

Co-Lead of Professional Development

- Actively participated in hackathons and successfully secured the "Best Use of the Auth0 API" award at [VTHack IX](#), showcasing exceptional problem-solving skills and innovative application of technology.
- Organize and facilitate computer science workshops focused on frontend development, internships, and interview practices.

**Skills:** React.js, HTML, CSS, Javascript, Algorithms

## PROJECTS

**Rate My Professor Chrome Extension** (Skills: Javascript, HTML, API) - [GitHub](#)

- Developed a **Chrome extension** that seamlessly displays professor ratings and comments while searching for classes
- Utilized **JavaScript** and **HTML** to fetch professor data from Rate My Professor's API through **GraphQL queries** and dynamically appended the results to the extension's popup window.

**Lyft Experience Program** (Skills: Python, OOP, Unit Test) - [GitHub](#)

- Developed clean UML design for new features and refactored the codebase for Lyft rental fleet team using **Python**
- Added a new tire component to the project using test-driven development and wrote 20 unit tests scripts.

**Social Banking Website Using React.js** | Hackathon (Skills: React.js, HTML, CSS, Javascript) - [GitHub](#)

- Constructed a social banking website that allows users to create savings accounts and then see the balances on all their friends' accounts during a hackathon using **React.js**, **HTML**, **CSS**, and **JavaScript**.
- Integrated **Capital One APIs**, incorporating virtual users' information such as monthly balances and current savings

## TECH SKILLS

Programming Language: Java, Python, C, C#, R, HTML, CSS, JavaScript

Tools and Framework: Tensorflow, Scikit-learn, Matplotlib, Numpy, Pandas, React.js, GraphQL, LaTeX, PyTorch

Software and System: Unity, Jupyter Notebook, Chrome, Linux