Akshar Yeccherla

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Education

Duke University Aug. 2022 – May 2026
Bachelor of Science in Computer Science, Mathematics *Durham, NC*

- **GPA:** 3.983/4.000
- **Selected Coursework:** Data Structures and Algorithms, Theory/Algorithms in Machine Learning, Advanced Linear Algebra, Computer Architecture, Graphics Software Architecture
- **Activities:** Lead Coordinator at the Duke Math Meet, Team Member at Duke ICPC, Duke Math Union
- **Awards:** 6th place - 2024 ICPC Regionals @ Mid-Atlantic Region, 2023 Putnam Top 500, 4x AIME Qualifier, USA Computing Olympiad Gold Division, National Cyber Scholar

Technical Skills

Languages: Java, Python, C++, JavaScript/TypeScript, SQL, R, C, Go
Frameworks/Technologies: AWS, Jenkins, Splunk, React.js, Next.js, Node.js, Flask, Tailwind, Bootstrap, Firebase, MongoDB, SQLite, PostgreSQL, HTML/CSS, REST API, Pandas, NumPy, TensorFlow, Unix, Mathematica, Figma

Experience

Capital One June 2024 – Present
Software Engineering Intern *McLean, VA*

- Summer 2024 (In Progress)

NetApp May 2023 – July 2023
Information Technology Intern *Raleigh, NC*

- Developed a user-friendly web application by creating and implementing a dashboard with **Python**, **Flask** and **SQLite** for order backlog management using data from SAB-IBP and Oracle ERP
- Developed a novel hierarchical agglomerative clustering solution using **Python** to cluster configure-to orders, with the potential to reduce the time taken for accurate supply chain lead-time estimates by **85%**.

Duke University Jan. 2023 – Present
Undergraduate Teaching Assistant *Durham, NC*

- Teaching assistant for CS201 Data Structures and Algorithms (Spring 2023) and CS330 Design and Analysis of Algorithms (Fall 2024); responsible for grading, office hours, and leading a recitation section of **20+** students

Undergraduate Research Assistant Jan. 2024 – May 2024

- Developer for variable importance testing project for CS474 Data Science Competition
- Implemented a robust testing and data pipeline in **Python** for producing results of variable importance methods in various data contexts, such as model reliance (MR), LASSO coefficients, and leave-one-covariate-out (LOCO)

Projects

2D Graphics Engine | *C++*

- Built a 2D graphics engine using **C++** with the ability to draw and clip polygons, beziers, and various shaders (gradients, bitmaps), with a focus on optimization

CNCM Online Platform | *Node.js, Next.js, MongoDB, Firebase*

- Developed a robust and scalable full-stack contest platform with real-time scoring for online math contests using **Next.js**, **MongoDB** and **Node.js**, resulting in **450+** users with **20,000+** total visits

Conditional Model Reliance Package | *Python*

- Wrote a **Python** package from scratch for conditional model reliance (CMR), a variable importance method described in *All Models are Wrong, but Many are Useful* (Fisher et al. 2019)

Wyvern: Web Video Call Platform | *Svelte, Node.js, PeerJS, Socket.IO*

- Built a lightweight web video call/streaming platform with **Svelte**, **Socket.IO** and **PeerJS** to transmit audio/video/screen-sharing efficiently between users and provide view customization at the user level