

# Samyukta Athreya

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## Education

<b>Carnegie Mellon University</b> <i>Pittsburgh, PA</i>	<b>May 2027 (Expected)</b>
<i>B.S. in Electrical and Computer Engineering, Minor in Artificial Intelligence</i>	<b>GPA: 3.8</b>
Dean's List · Winner, Hack-112 & Covestro Makeathon · Jazz Orchestra · Game Creation Society	

## Skills

**Programming Languages:** JavaScript, TypeScript, Python, C, C++, SQL, Bash

**Web Development:** React, Node.js, Express.js, REST APIs, MongoDB, HTML/CSS, Socket.IO

**Systems & Tools:** Git, GitHub Actions, Render, Chrome DevTools, ESLint, Prettier

**Data/ML:** scikit-learn, Pandas, NumPy, TensorFlow, PyTorch

## Relevant Courses

Full Stack Software Development for Engineers · Machine Learning · Computer Systems · Principles of Imperative Computation · Signals and Systems

## Experience

<b>Robotics Institute</b> , Carnegie Mellon University	<b>January 2025 – Aug 2025</b>
• Developed a production-ready <b>React</b> interface to control a KINOVA robotic arm via <b>ROS</b> , enabling real-time feedback, command streaming, and accessible interaction.	
• Co-designed a human-subjects study to examine how autonomy levels affect users' sense of agency in shared-autonomy systems.	
<b>Student Academic Success Center</b> , Carnegie Mellon University	<b>January 2025 - present</b>
• Tutored CMU students in Python, Probability Theory, and Intro to Computer Engineering	
• Made difficult topics more accessible by breaking them down into clear, relatable explanations.	
<b>Research Intern</b> , Carnegie Mellon University	<b>May 2024 – Aug 2024</b>
• Built data processing scripts in Python (Pandas, NumPy) to clean, structure, and analyze educational datasets.	
• Automated visualization and reporting workflows to support data-driven research.	
• Engineered features and built decision tree and ensemble models (e.g., Random Forest) to analyze learner performance trends and identify key predictors in educational datasets.	

## Projects

<b>Yet Another Chat App (YACA)</b>	<b>Aug 2025 - present</b>
• Built a real-time full-stack web application using TypeScript, Node.js, Express, MongoDB, and Socket.IO.	
• Implemented JWT authentication and designed RESTful user/session endpoints.	
• Architected WebSocket-based real-time messaging and deployed the app using GitHub + Render.	
<b>HTTP Web Proxy</b>	<b>March 2025</b>
• Developed a <b>multithreaded HTTP proxy server in C</b> , supporting caching, concurrency, and safe request handling.	
• Implemented socket programming, mutex locks, and request parsing aligned with RFC HTTP specifications.	