

# Samyukta Athreya

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## Education

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

## Skills

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**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

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

## Experience

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**Robotics Institute, Carnegie Mellon University** **January 2025 – Aug 2025**

- Developed a production-ready **React** interface to control a KINOVA robotic arm via **ROS**, 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.

**Student Academic Success Center, Carnegie Mellon University** **January 2025 - present**

- 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.

**Research Intern, Carnegie Mellon University** **May 2024 – Aug 2024**

- 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

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**Yet Another Chat App (YACA)** **Aug 2025 - present**

- 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.

**HTTP Web Proxy** **March 2025**

- Developed a **multithreaded HTTP proxy server in C**, supporting caching, concurrency, and safe request handling.
- Implemented socket programming, mutex locks, and request parsing aligned with RFC HTTP specifications.