

Oyon Ganguli

Greater Boston & Capital Region | ganguo@rpi.edu | [linkedin.com/in/oyonganguli](https://www.linkedin.com/in/oyonganguli) | ganguli.dev

EDUCATION

Rensselaer Polytechnic Institute (RPI)

Troy, NY

Bachelor of Science in Information Technology and Web Science

Aug. 2025 – Expected May 2029

- **Relevant Coursework:** Data Structures & Algorithms (C/C++), Computer Architecture & OS (C, Linux), Intro to Algorithms, Web Systems Development (Laravel, Docker), Cloud Security (AWS, Azure, Terraform)

WORK EXPERIENCE

Software QA Intern

May 2026 – Present

Brooks Automation

Chelmsford, MA

- Developed hardware-in-the-loop unit & regression tests on a custom test framework for a family of high-precision semiconductor wafer-handling robots
- Built an ETL pipeline that auto-fills a test matrix from ~10K weekly CI results, saving 8 hrs/week of manual entry
- Automated regression detection, alerting on the affected robot type & test and auto-filing the failing report
- Retained part-time (remote) through the school year following on-site summer internship

Coding Instructor

July 2023 – Aug. 2024

Code Ninjas

Waltham, MA

- Taught JavaScript, Python, Java, and Lua to beginner through experienced students, adapting to each level
- Communicated students' technical achievements to parents in non-technical terms

PROJECTS

RideLink | Rensselaer Center for Open Source (RCOS); FastAPI, PostgreSQL

Spring 2026

- Built the FastAPI REST backend with Pydantic models for an open-source carpooling matcher
- Wrote the ride-matching algorithm, pairing rides by location proximity
- Designed the database schema, implemented with PostgreSQL & SQLAlchemy
- Developed a GitHub Actions CI pipeline running automated Pytest tests
- Contributed under RCOS open-source standards for version control, development practices & contribution quality

Texting Clone LLM | Personal Project; Python, Google Colab

Fall 2026

- Fine-tuned Qwen3 models on multi-turn message threads, using loss masking to capture personal texting behavior
- Developed the QLoRA training script with AI development tools, iterating on data format & parameters
- Evaluated 8B, 14B, and 32B fine-tunes as chatbots, tuning sampling settings
- Converted a gaming PC into a dual-boot Ubuntu server and deployed the fine-tune for web & inference hosting

GitFieri | RPI ITWS Term Project; PHP, MySQL, Azure

Fall 2025

- Built a RESTful API backend supporting CRUD operations for a collaborative git-style cookbook application
- Wrote backend version control logic in PHP implementing branching, merging, and ownership changes
- Deployed to Azure & managed the MySQL database

MESS | RCOS Project Sponsored by Western Digital; Node.js, ESP32

Fall 2026 – Present

- Developing the Node.js server for the Mesh Environment Sensor System, receiving data from an ESP32 network
- Working with the firmware team to standardize the data format between ESP32 nodes and the server
- Integrating data science analysis of the collected sensor data into the server

SKILLS

Languages: Python, C/C++, SQL, JavaScript, PHP, Java, R

Frameworks & Libraries: FastAPI, Node.js, Laravel, SQLAlchemy, Pydantic, Pytest, Google Apps Script

Tools & Platforms: Git, GitHub Actions, Docker, AWS, Azure, Terraform, Linux, PostgreSQL, MySQL, Jira

Practices: API & DB design, CI/CD, Cloud deployment, IaC, Agile/Scrum, Test Automation

AI Tooling: LLM hosting, sampling settings, vector databases (Weaviate), MCP, Claude Code, Codex, GitHub Copilot