

# David Liu

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## Education

**Rensselaer Polytechnic Institute (RPI)**, Troy, NY  
Bachelor of Science in Computer Science

Cumulative GPA: 3.73 / 4.00  
**December 2022**

## Experience

**Horticulture Fluorescent Sensor Project**, Lighting Enabled Systems & Applications

**Summer - Fall 2022**

*Programmer*

- Developed a Bluetooth client-server network to communicate data between microcontrollers
- Presented weekly stand-ups over the summer and maintained a development schedule

**Undergraduate Research**, Rensselaer Polytechnic Institute

**Spring 2022**

*Programmer / Researcher*

- Developed algorithms to optimize graph generation for real-world networks in Python
- Designed infrastructure for data processing, analysis and visualization
- Collaborated with a professor and graduate student

**Pipeline**, Rensselaer Center for Open Source (RCOS)

**Fall 2021**

*Developer*

- Resolved Github issues with a focus on the Python backend
- Cultivated skills in PostgreSQL, Django, and Wagtail

**YACS**, Rensselaer Center for Open Source (RCOS)

**Summer 2021**

*Developer*

- Worked with SQL tables to generate and display professor emails on the frontend
- Cultivated skills in Javascript, SQL, Vue, and Docker

## Skills

**Languages:** Python, C++, C, HTML/CSS

**Proficiencies:** Git, SQL, LaTeX, Ubuntu / Arch Linux, Adobe Photoshop

**Aptitudes:** Machine learning, data analysis, data visualization, collaborative research

## Coursework

**Machine Learning from Data**

**Fall 2021**

- Implemented learning models using statistics, linear algebra, and algorithms
- Programmed a neural network from scratch

**Software Design & Documentation**

**Summer 2021**

- Applied Electron, Typescript, and Git in project work
- Studied software methodologies, communication practices, and product development

**Introduction to Algorithms**

**Spring 2021**

- Implemented divide-and-conquer, dynamic programming, and greedy algorithms

## Extracurriculars

**The Polytechnic**, Rensselaer Polytechnic Institute

**Fall 2021 - 2022**

*Managing Editor*

- Wrote news articles and op-eds for RPI's student-run news organization
- Critiqued and edited articles to ensure they met journalistic standards
- Represented RPI at the 2022 College Media Association convention in New York City