

# David Liu

324 Fairmount Ave, Hackensack, NJ | me@dliu.xyz | 201 250 1313

## Education

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

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

## Experience

**Interpretable Cognitive Architectures**, AI Safety Camp

**March - June 2023**

*Independent Researcher*

- Designed a novel neuro-symbolic architecture in collaboration with a research team
- Researched positive attractors and AI self-alignment techniques

**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 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*

- Debugged and fixed Python backend issues on Github
- 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:** PyTorch, Git, LaTeX, Debian / Arch Linux

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

## Research

**Correcting Output Degree Sequences in Chung-Lu Random Graph Generation**

**2022**

Christopher Brissette, David Liu, and George M. Slota

*In the Proceedings of The 11th International Conference on Complex Networks and Their Applications*

## Extracurriculars

**The Polytechnic**, Rensselaer Polytechnic Institute

**Fall 2021 - Fall 2022**

*Managing Editor, News Editor*

- Managed the editorial process for articles, enforcing journalistic consistency and integrity
- Wrote news articles and op-eds for RPI's student-run news organization
- Represented RPI at the 2022 College Media Association convention in New York City