

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

Interpretable Cognitive Architectures, AI Safety Camp
Researcher

March - June 2023

- 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
Data Engineer

Summer - Fall 2022

- Developed a scalable Bluetooth client-server network to communicate data between microcontrollers
- Presented weekly stand-ups and maintained a development schedule with 2 coworkers

Undergraduate Research, Rensselaer Polytechnic Institute
Researcher

Spring 2022

- Optimized random graph generation for large real-world networks with >20k nodes
- Designed infrastructure for data processing, analysis and visualization
- Co-authored a paper with a professor and graduate student

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

Fall 2021

- Debugged and fixed Python backend issues on Github
- Cultivated skills in PostgreSQL, Django, and Wagtail

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

Summer 2021

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

Skills

Aptitudes: Machine learning, data analysis, data visualization, scientific research

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

Proficiencies: PyTorch, Matplotlib, NumPy, Git, LaTeX, Linux

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
Managing Editor

Fall 2021 - Fall 2022

- 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