David Liu

324 Fairmount Ave, Hackensack, NJ | davidliu081001@gmail.com | 201 250 1313 | dliu.xyz

Experience

Horticulture Fluorescent Sensor Project, Lighting Enabled Systems & Applications   **May - December 2022**
Data Engineer
- Designed a scalable Bluetooth client-server network to communicate data between microcontrollers
- Built a data processing pipeline using Micropython and PostgreSQL databases
- Presented weekly stand-ups and maintained a software development schedule

Undergraduate Research, Rensselaer Polytechnic Institute   **January - April 2022**
Researcher
- Optimized random graph generation algorithms for large real-world networks with >20k nodes
- Designed infrastructure for data processing, analysis and visualization using NumPy and matplotlib
- Co-authored a paper with a professor and graduate student

Pipeline, Rensselaer Center for Open Source (RCOS)   **Fall 2021**
Open Source Developer
- Debugged and closed Python backend issues on Github
- Cultivated skills in PostgreSQL, Django, and Wagtail

YACS, Rensselaer Center for Open Source (RCOS)   **Summer 2021**
Open Source Developer
- Worked with SQL tables to generate and display professor emails on the frontend
- Cultivated skills in Javascript, SQL, Vue, and Docker

Skills

Aptitudes: data analysis, software engineering, data visualization, shell scripting
Languages: Python, SQL, C++, C, HTML/CSS
Proficiencies: Git, NumPy, matplotlib, Linux, LaTeX

Education

Rensselaer Polytechnic Institute (RPI), Troy, NY   Cumulative GPA: 3.73 / 4.00
Bachelor of Science in Computer Science   **December 2022**

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