

Daniel Lee

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EDUCATION

Purdue University

Bachelor of Science in Data Science

West Lafayette, IN

August 2022 – May 2026

EXPERIENCE

Software Engineer Intern

Daedalus Labs

July 2024 – October 2024

San Francisco, CA

- Engineered and deployed a **Node.js** application on **Microsoft Azure** to streamline webhook data into **JSON** formats, utilizing **Azure SQL** to log thousands of Bitcoin rune transactions
- Developed automated notification systems for **Bitcoin** and **Fractal** transactions, integrating Discord alerts and Chrome extension notifications for real-time updates
- Participated in **Agile** scrum meetings, delivering progress reports and contributing to blockchain research and development

Data Analyst Intern

NSF I-GUIDE

August 2023 – May 2024

West Lafayette, IN

- Analyzed spatial flood inundation maps of **345+** dams alongside socioeconomic indicators and census blocks to assess risks to vulnerable populations
- Optimized a version of **HPC workflow** for distributed environments using **Apache Spark** and **Sedona** and architected a version runnable in a **Jupyter** environment
- Identified and resolved **performance bottlenecks** in HPC workflows using Python profiling tools
- Converted large **GeoTIFF** data files to parallel and distributed-friendly formats including **Parquet** and **Zarr**

PROJECTS

Dijkstra's Pathfinding Algorithm Visualization

<https://github.com/lee4293/dijkstra-path>

May 2024 – July 2024

Cupertino, CA

- Constructed an interactive Dijkstra's algorithm visualization tool using **NumPy** and **Matplotlib**
- Developed a dynamic grid system for setting obstacles and targets with real-time updates

Undergraduate Student Researcher

The Data Mine (Purdue University)

August 2022 - May 2023

West Lafayette, IN

- Participated in a **joint research** program with the CDC Protect initiative to identify factors for pediatric melatonin overdose
- Conducted data analysis of over **347** products from the **NIH dietary supplement database**
- Utilized **NLP** and **Topic modeling** to analyze **3500+** Amazon reviews and **410+** Reddit posts

LEADERSHIP EXPERIENCE

Teaching Assistant

The Data Mine (Purdue University)

August 2023 - April 2024

West Lafayette, IN

- Facilitated weekly sections of **100+** students to help reinforce data analysis concepts using **R** and **Python**
- Mentored students during regularly scheduled office hours and assisted course expansion

TECHNICAL SKILLS

Languages: Java, Python, C++, SQL(MySQL), R, Javascript

Developer Tools: Microsoft Azure, Git, GitHub, Jupyter Notebook, Docker, OpenAI, Selenium

Code Editors: Visual Studio, PyCharm, IntelliJ, Eclipse

Spoken Languages: English (Native), Korean (Native), Spanish (Intermediate)

RELEVANT COURSEWORK

Purdue University

- CS 251 - Data Structures and Algorithms
- STAT 355 - Statistics for Data Science
- CS 373 - Data Mining and Machine Learning
- MA 351 - Linear Algebra