Daniel Lee

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EDUCATION

Purdue University

West Lafayette, IN

Bachelor of Science in Data Science

August 2022 - May 2026

EXPERIENCE

Software Engineer Intern

July 2024 – October 2024

Daedalus Labs

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

August 2023 – May 2024

NSF I-GUIDE

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 architectured 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

May 2024 – July 2024

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

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

August 2022 - May 2023

The Data Mine (Purdue University)

West Lafayette, IN

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

Leadership Experience

Teaching Assistant

August 2023 - April 2024

The Data Mine (Purdue University)

 $West\ Lafayette,\ IN$

- 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