Zhiyuan (David) Liu

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Skills

Languages: C++, Javascript, Python, Rust, HTML/CSS
Other skills: React, Docker, CI/CD, Git, Databases/SQL, GraphQL, Django, Expo, Node.js, Vue

Work Experience

ThinkNimble   2023 - 2024
- Full stack software engineer and project lead for Thinknimble, a design and software development agency
- Developed a fully functional, production-ready application for an intelligence and risk advisory firm from scratch within two months
- Scaled a data-intensive, high compute project to ingest hundreds of thousands of news articles, legislative updates, and other bodies of information per day in real time, allowing users to automate the construction of daily reports on topics of their choice, which lead to client's successful pitch to investors and smooth adoption by beta users
- Drove adoption of cutting edge technology in the machine learning space by producing reusable code for developers, continuously researching the best models and tools, and communicating with non-technical stakeholders to explain methodology and advise on effective usage in a constantly changing landscape, advancing ThinkNimble's expertise and leading to more client interest and contracts
- Core technologies: Python, Javascript, Vue, React, Django, Expo, Postgres

Johns Hopkins Applied Physics Laboratory   2019 - 2023
- Foremost software developer on a Joint Artificial Intelligence Center (JAIC)/Chief Digital and Artificial Intelligence Office (CDAO) project on a contract of over $100 million, designing and leading development for a distributed, real time, autonomous artificial intelligence system
- Implemented modern software engineering practices, such as Agile, standardized developer setups, unit/integration testing, code reviews, and mentor/mentee partnerships, more than tripling productivity over the course of two years
- Tech lead on proposal winning $5 million contract revolving around machine learning data management, storage, and exploitation using a scalable, distributed backend written in Rust
- Core technologies: C++, Rust, Javascript, Node, Docker, Tensorflow, Pytorch, Python, React, Gitlab CI/CD, SQL

Smash.gg   2018 - 2019
- Worked as a full-stack developer on an esports platform focused on bottoms-up growth and grassroots competition by hosting hundreds of thousands of users and events
- Overhauled search system, the most heavily requested improvement for the site, hugely increasing the relevancy of the results and improving speed by an order of magnitude
- Produced custom event types and features for partners such as Microsoft and Twitch, realizing profit on several six figure contracts and paving the way for more holistic solutions involving specialized options available to all users
- Core technologies: React, GraphQL, PHP, SQL, GCP

Education

Johns Hopkins University - M.S, Computer Science   2021 - 2023
Swarthmore College - B.S, Major in Computer Science, Minor in Mathematics   2014 - 2018

Projects

Project Slippi - Dolphin developer (https://github.com/project-slippi/dolphin)
R2DLiu.com - Personal website (https://github.com/r2dliu/r2dliu-website)