Henry Nguyen

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EDUCATION

Louisiana State University (LSU), Baton Rouge, LA **May 2024**
Bachelor of Science, Computer Science; Minor, Mathematics *GPA: 3.54*
Coursework: Advanced Data Structures & Algorithm Analysis, Computer Organization & Design, Operating Systems, Programming Languages, Software Systems Development, Compiler Construction, Database Management, Software Testing

EXPERIENCE

LSU High Performance Computing Group June 2023 – Current
Web Developer Baton Rouge, LA

- Develop new Coldfront web application, utilizing Django, facilitating efficient resource, allocation, and compute job request management for 100+ college professors and researchers across Louisiana.
- Conceptualize current account application workflow into MVC architecture of the Coldfront application, maintaining consistency between current tool's functionality and future product's design.
- Facilitate communication between cross functional teams in order to define project requirements, foster open communication, and ensure comprehensive understanding of LSU HPC needs.

MogaoKoo/Licens March 2023 – August 2023
Frontend Developer Intern Remote

- Built and integrated new features into existing product, utilizing React.js, to provide the option to list various multimedia on Web3-based decentralized commerce platform.
- Launched redesigned product with collaboration alongside company CTO and CEO to incoming store partners, growing user traffic and transactions by 100%.
- Perform quality assurance, identified and reported software defects leading to improved product development while maintaining existing CI/CD pipeline development.

LSU Department of Mathematics January 2022 – August 2022
Research Assistant Baton Rouge, LA

- Developed production-ready simulations, collaborated with professors and graduate students to discover new approaches on effective control of marine robot movement.
- Created a simulation using Python, utilized NumPy and Matplotlib to model marine robot movement curve tracking.
- Evaluated 50+ pieces of literature, analyzed relevant research to verify understanding of curve tracking and following.

PROJECTS

Frody (Google Cloud Platform, React.ts, dbt, Firebase, Twilio), *PennApps XXIV (University of Pennsylvania)* Fall 2023
Hackathon – Five Rings' Best Distributed Systems; PennApps' Most Technically Complex Hack

- Designed a distributed system using Google Cloud Platform to detect suspicious and fraudulent credit card transaction activity.
- Integrated Twilio API into distributed system by writing a REST API, ensuring immediate SMS notification of fraud.
- Implemented a random forest classifier utilizing BigQuery ML and dbt to analyze and model large-scale credit fraud datasets, achieving a predictive accuracy of 90%.

Code Flow (React.js, Flask, MongoDB, Cohere, Pyvis), *Hack the North 2023 (University of Waterloo)* Fall 2023
Hackathon – 3rd in Cohere's Best Use of Cohere

- Created a React.js web application utilizing Cohere's LLM/NLP API to improve onboarding efficiency of company recent hires, decreasing onboarding time by 25%.
- Designed a dependency visualization using Flask and Pyvis to generate abstract syntax trees (ASTs), allowing users to examine file and folder dependencies of the code repository.
- Integrated a chat bot using Cohere's Embeddings feature to provide extensive knowledge of the code repository and assist user in feature development.

SKILLS

Programming Languages: Python, Java, JavaScript, TypeScript, HTML, CSS, C++, C, Dart, MATLAB
Frameworks: React, Express.js, Node.js, Flask, Django, Ruby on Rails, Flutter
Databases and Tools: MySQL, MongoDB, Firebase | GCP, AWS, Bloomberg Terminal, GitHub, Bitbucket, Git, Jira
Software Development Methods: Agile methodologies, Scrum, test-driven development

INTERESTS

Competing in hackathons, watching Formula 1, reading books/big tech engineering blogs