Henry Nguyen

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EDUCATION

Louisiana State University (LSU), Baton Rouge, LA **May 2024**
Bachelor of Science, Computer Science; Minor, Mathematics *GPA: 3.5*
Coursework: Advanced Data Structures & Algorithm Analysis, Computer Organization & Design, Operating Systems, Programming Languages, Software Systems Development, Compiler Construction, Database Management, Software Testing

SKILLS

Programming Languages: Python, Java, JavaScript, HTML, CSS, C++, C
Frameworks: React.js, Express.js, Node.js, Flask, Bootstrap, Django, Ruby on Rails, Flutter
Databases and Tools: MySQL, MongoDB, Firebase | GCP, AWS, Bloomberg Terminal, GitHub, Bitbucket, Git

EXPERIENCE

LSU High Performance Computing Group June 2023 – Current
Web Developer | Python, Django, JavaScript, HTML, CSS, Bitbucket Baton Rouge, LA

- Develop new Coldfront web application, utilizing Django, facilitating efficient resource and allocation management for LSU HPC and Louisiana Optical Network Infrastructure (LONI).
- Built and integrated new features into the HPC Open OnDemand portal to facilitate computational research requiring LSU supercomputers.
- Integrated new search features into existing allocation management platform to improve writing compute jobs for LSU researchers and professors by collaborating alongside LSU HPC members and LSU Online.

Licens March 2023 – Current
Frontend Developer Intern | React,js, HTML, CSS, Javascript 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, user traffic and transactions grew by 100%.
- Perform quality assurance, identified and reported software defects leading to improved product development.

LSU Department of Mathematics January 2022 – August 2022
Research Assistant | Python 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

- Designed a distributed system using Google Cloud Platform to detect suspicious/fraudulent credit card transaction activity
- Integrated Twilio API into distributed system for immediate SMS notification of credit card fraud.
- Implemented a random forest classifier utilizing BigQuery ML to analyze and model large-scale credit fraud datasets, achieving a predictive accuracy of 90%.
- Created a React.ts user interface for users to subscribe to centralize and subscribe all credit cards to detection service
- Presented to industry developers/mentors, winning Five Rings' Best Distributed Systems and UPenn's Most Technically Complex Hack.

Code Flow (React.js, Flask, MongoDB, Cohere, Pyvis) *Hack the North 2023 (University of Waterloo)* Fall 2023

- 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 implement an abstract syntax tree (AST), 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.
- Presented to startup founders and industry developers, placing 3rd in Cohere's Best Use of Cohere award.