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 | Python, Django, JavaScript, HTML, CSS, Bitbucket, Jira   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
- Integrate new search features into existing allocation management platform through collaboration with LSU HPC members to improve creating compute jobs
- Facilitate communication between cross-functional teams in order to define project requirements, foster open communication, and ensuring comprehensive understanding of LSU HPC needs

Licens   March 2023 – August 2023
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, growing user traffic and transactions 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 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.
- Presented to startup founders and industry developers, placing 3rd in Cohere's Best Use of Cohere award.

SKILLS

Programming Languages: Python, Java, JavaScript, TypeScript, HTML, CSS, C++, C, Dart
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