VIVIAN NGUYEN

682-240-3366 - viviannguyen726@gmail.com
www.linkedin.com/in/viviannguyen726

SUMMARY

Motivated Software Engineer with a solid foundation in computer science and biomedical engineering. Experienced in full-stack development, cloud deployment, automation, and AI/ML frameworks (TensorFlow, PyTorch, Hugging Face). Proficient in Python, JavaScript, Java, and C++. Skilled in building scalable, secure applications and collaborating in Agile teams.

EDUCATION

Georgia Institute of Technology Atlanta, TX
M.S. in Computer Science | Graduation Date: May 2027
Southern New Hampshire University Manchester, NH
B.S. in Computer Science | GPA: 4.0 | Graduation Date: Dec 2024

PROJECT

Travlr Getaways Web Application
Course Project — Southern New Hampshire University

- Developed a full-stack web application using the MEAN stack (MongoDB, Express, Angular, Node.js) to manage travel bookings for customers and administrative functions for staff.
- Implemented a Single Page Application (SPA) with Angular, enhancing user experience with dynamic content updates and seamless navigation.
- Deployed on AWS, utilizing Lambda, S3, and DynamoDB to ensure scalability, high availability, and cost-efficiency with automatic workload management.
- Containerized the application using Docker for consistent deployment, simplifying testing, scaling, and reducing environment-related issues.
- Implemented role-based access control for secure login, protecting sensitive administrative data.Utilized a NoSQL MongoDB database to efficiently manage unstructured data, supporting flexible and scalable backend architecture.
- Developed and rigorously tested RESTful APIs using Postman and MongoDB Compass, ensuring data accuracy and optimal performance.
- Followed agile methodology with Git for version control, iteratively delivering updates and enhancements on schedule.

Personal Website — MERN Stack Developer
Personal Project

- Developed a full-stack personal website using the MERN stack (MongoDB, Express.js, React, Node.js) to showcase portfolio and projects.
- Designed responsive and user-friendly UI with React and styled-components for seamless cross-device experience.
- Built RESTful APIs with Express and Node.js to manage backend services and data interactions.
- Implemented MongoDB for efficient data storage and retrieval of user inquiries and project details.
- Deployed the site on cloud platforms (e.g., Heroku, Vercel) for high availability and performance.

OpenGL Scene Recreation
Course Project — Southern New Hampshire University

- Developed complex 3D scenes using OpenGL to accurately recreate real-world images captured with a laptop, showcasing strong proficiency in computer graphics.
- Skillfully modeled and textured objects such as a cup, table, snowball, and Rubik's cube, demonstrating attention to detail and a solid understanding of 3D geometry and rendering techniques.
- Applied advanced lighting and shading techniques to enhance realism, ensuring the visual fidelity of the recreated scenes.

2D Collision Game Development
Course Project — Southern New Hampshire University

- Designed and implemented a 2D collision-based game using OpenGL and GLFW, showcasing strong skills in game development and real-time graphics programming.
- Developed dynamic gameplay features, including paddle movement, randomly generated reflective and destructible bricks, and sophisticated collision detection for interactive circles, demonstrating a deep understanding of game mechanics and physics.
- Optimized game performance and responsiveness, reflecting proficiency in efficient coding practices and 2D graphics programming.

JOB EXPERIENCE

Artificial Intelligence Mastery: Complete AI Bootcamp 2025
Intensive 16-week AI Training Program Mar 2025– Jul 2025

- Completed a comprehensive AI bootcamp covering Python programming, machine learning, deep learning, NLP, and AI frameworks (TensorFlow, PyTorch, Hugging Face).
- Gained hands-on experience building, training, and deploying AI models for real-world applications including image recognition, NLP tasks, and time-series forecasting.
- Developed skills in data preprocessing, transfer learning, containerization with Docker, and deployment of ML models via scalable APIs.
- Mastered full ML lifecycle management: model training, evaluation, monitoring, drift detection, and retraining pipelines.
- Applied statistical and mathematical foundations to improve model performance and robustness.
- Worked on practical AI projects simulating industry scenarios to prepare for AI engineering roles.

Product Development Engineer I
Resolution Medical Jun 2023– Present

- Designed and developed implantable neurostimulation devices and brain-computer interface (BCI) systems with an emphasis on software-hardware integration.
- Conducted Design Verification Testing (DVT) to ensure FDA compliance.
- Collaborated with engineers from software, electrical, and mechanical disciplines to ensure successful development of electromechanical systems.
- Used debugging tools and analyzed system performance to troubleshoot issues with hardware-software interactions, ensuring reliability in medical applications.