Thien Hoang

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EDUCATION

Washington University in St. Louis   St. Louis, MO
Bachelor of Science in Computer Science GPA: 3.52   *August 2022 – December 2025*
- **Scholarships**: Danforth Scholar, Taylor Enterprise Holdings Scholar, Chancellor's Fellow
- **Relevant Courses**: Data Structures and Algorithms, Analysis of Algorithms, Algorithms for Nonlinear Optimization, Object-Oriented Programming, Artificial Intelligence, Mobile App Development

WORK EXPERIENCE

Machine Learning Engineer   December 2024 – Present
Engineering Test Kitchen, Washington University in St. Louis   St. Louis, MO
- Implemented a computer vision ML model utilizing TensorFlow and PyTorch to identify wood components from photographs and spreadsheet data, aiding inventory management processes
- Created synthetic data using Blender Python API and OpenCV, generating 10,000+ realistic sample images with varying lighting conditions (0-1000 lux), camera angles (0-360°), and surface textures across 15 wood species
- Contributed to data preprocessing and feature engineering pipelines using Python and NumPy

Software Engineer Intern   August 2024 – Present
Cobbs Creek Healthcare   Remote
- Developed a full-stack mobile application using React-Native and JavaScript, implementing secure user authentication and real-time data synchronization through Firebase
- Engineered real-time video conferencing system using WebRTC and WebSocket, enabling secure one-to-one and one-to-many connections with low latency
- Integrated VR capabilities using Three.js and React Three Fiber, enabling immersive user experiences and expanding application functionality

Data Analyst Intern   May 2024 – August 2024
Cobbs Creek Healthcare   Philadelphia, PA
- Developed an interactive patient flow visualization dashboard using Python Dash and PostgreSQL, analyzing 10,000+ patient treatment pathways
- Engineered data extraction and processing scripts for 15,000+ WebMD drug reviews, applying NLP techniques to analyze sentiment values
- Applied marketing mix modeling using Python and scikit-learn, implementing regression models to predict campaign ROI and automate budget allocation

GRC Security Analyst Intern   October 2023 – Present
Office of Information Security, Washington University in St. Louis   St. Louis, MO
- Conducted over 50 risk assessments for university systems using OneTrust for security posture and compliance
- Reported information security metrics to ensure compliance with mandates and information security policies
- Analyzed BlackKite scan results to identify and assess potential vulnerabilities across university infrastructure

RELEVANT EXPERIENCE

Teaching Assistant for CSE 132: Introduction to Computer Engineering   January 2025 – Present
McKelvey School of Engineering, Washington University in St. Louis   St. Louis, MO
- Guided 120+ students in programming concepts including Assembly language, FSMs, and Arduino-C interfacing
- Held weekly 2-hour office hour sessions, grading and providing detailed feedback on coding assignments

Academic Tutor   August 2023 – Present
Engineering Undergraduate Student Services, Washington University in St. Louis   St. Louis, MO
- Mentored 40+ students in multiple CS courses, explaining programming concepts to CS and non-CS majors
- Assisted students with debugging and provided guidance on best practices in programming

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, C++, SQL, HTML/CSS, R, Assembly
Frameworks and Tools: React Native, Node.js, Express.js, Firebase, Docker, Git, OneTrust, BlackKite, NLTK, scikit-learn, TensorFlow, PyTorch
Proficiencies: Agile Development, Scrum, Leadership, Teamwork, Problem-Solving