Jack Stoltz

646-799-5047 | jstoltz6@gatech.edu | linkedin.com/in/jack-stoltz | github.com/JackStoltz | jackwstoltz.com

Education

Georgia Institute of Technology May 2027
BS Computer Engineering | Concentrations: Devices, Distributed Systems & Software Design GPA: 3.75/4.00
Courses: Software Engineering, Computer Architecture, Computer Vision, Machine Learning, Object-Oriented Programming, Data Structures, Algorithms, Programming HW/SW System, Discrete Mathematics

Experience

Intel June 2025 – Present
GPU Software Engineering Intern - Validation Infrastructure Team Chandler, AZ
- Engineered an end-to-end Python pipeline to validate PSMI signal integrity through the GPU memory fabric
- Standardized pipeline reuse across GT/SM and Graphics SoC clusters, cutting debug time for validation engineers by 60%
- Integrated pipeline into Intel's CI/CD regression framework, enabling scalable nightly runs across 100+ test scenarios
- Executed pre-silicon regressions for Nova Lake SoC, verifying stability of AI-accelerated compute and memory systems

AquaBots Lab @ Georgia Tech January 2025 – May 2025
Lead Undergraduate Researcher - Computer Vision Team Atlanta, GA
- Spearheaded a 6-person team in designing and implementing computer vision pipelines for salmon detection & classification
- Enhanced YOLOv8 with depth channels, boosting salmon detection mAP by 20% in underwater field videos
- Designed and trained a custom PyTorch CNN for depth-contour extraction, enabling real-time fusion with YOLOv8 output
- Evaluated fish scale classifiers with AlexNet & 2-stream architectures, achieving 80%+ accuracy on lab-annotated datasets

Qwzrd June 2022 – August 2022
Software Engineering Intern New York, NY
- Prototyped NLP-based variable tool using React, Python, & SQL to convert free-form input to structured expressions
- Delivered MVP that was adopted by software engineering team, boosting beta user engagement by 15%
- Analyzed applications of natural language interfaces in edtech to inform feature prioritization and guide project decisions

New York Edge June 2024 – August 2024
Computer Science Instructor New York, NY
- Instructed programming principles to class of 30 high school students, including modularity, debugging, & version control
- Facilitated interactive group coding projects using JavaScript and Github simulating software development life cycles
- Mentored students through full projects resulting in 100% completion, developing verbal and written communication skills

SA-DA Architecture January 2021 – August 2021
Web Developer & PC Builder New York, NY
- Deployed interactive e-portfolio showcasing firm's past projects using HTML/CSS/Javascript
- Configured 15+ high-performance workstations, accelerating architectural rendering and 3D modeling
- Diagnosed software/hardware issues and replaced faulty components, ensuring compliance with performance requirements

Projects

Hermedoc - Secure RAG Application October 2024 – November 2024
- Designed a secure offline RAG system enabling DoD-restricted industries to query private data locally via LLAMA-3
- Generated embeddings with Hugging Face + LlamaIndex and managed local vector database for contextual retrieval
- Developed responsive React + Flask user interface, streamlining data upload and chatbot interaction for non-technical users

Computer Vision Robotic Arm - Vision-Based Hand Gesture Control October 2024 – November 2024
- Implemented gesture recognition with MediaPipe and OpenCV, enabling webcam-based control of the arm's axes
- Interfaced Python vision pipeline w/ Arduino C++ firmware, allowing seamless actuation of servo motors from gestures

NextRead - Full-Stack Book Recommendation Application September 2024 – November 2024
- Built book recommendation app with Flask backend + React frontend, delivering reading suggestions from user history
- Integrated OpenAI GPT API enabling dynamic problem-solving and response generation tailored to user preferences

Stock Sentiment Analysis - Text Sentiment Classification August 2024 – September 2024
- Developed full-stack Flask app with Naive Bayes classifier trained on 50k Reddit fintech posts to classify opinion in real time
- Visualized sentiment probabilities with Plotly.js, improving interpretability through interactive bar charts

Technical Skills

Languages: Python, Java, C/C++, C#, JavaScript/TypeScript, PostgreSQL, HTML5/CSS, Assembly
Frameworks & Libraries: ReactJS, NodeJS, Flask, Pandas, OpenCV, Spring, NLTK, PyTorch, TensorFlow
Tools & Platforms: Git/GitHub, Unix/Linux, Excel, Agile, Azure, Docker, AWS