leo@alexeyev.org
(727) 776-5537

Leonid Alexeyev

linkedin.com/in/leonid-alexeyev/
www.alexeyev.org

Education

Georgia Institute of Technology **Expected M.S. May 2026**

- Completed B.S. in Computer Science with a concentration in Intelligence and Devices **GPA: 3.78**
- Pursuing M.S. in Computer Science with a concentration in Machine Learning
- Teaching Assistant for CS 3630 (Perception and Robotics) and CS 2200 (Systems and Networks)

Skills

- Languages: Python, C++, C, C#, Java, JavaScript, Typescript, SQL, MATLAB, Assembly
- Tools: PyTorch, HuggingFace, React, React Native, Node.js, .NET, Firebase, PostgreSQL, MySQL, Git

Experience

Software Development Intern **QGenda** **May 2025 - August 2025**

- Developed and maintained full stack features for on-call and location based scheduling, leveraging **React** and **.NET** frameworks to enhance a SaaS healthcare workforce management platform
- Worked with **PostgreSQL** and **MySQL** to design, optimize, and troubleshoot database queries supporting the application
- Collaborated in an Agile development environment completing stories as a fully integrated member of a software team, including daily stand-ups and sprint planning.

Pavement Quality Researcher **Georgia Institute of Technology** **January 2024 - May 2025**

- Investigated Full Reference Image Quality Assessment (IQA) and Point Cloud Quality Assessment (PCQA) indicators to develop a standardized validation metric of 3D scanners used for pavement crack detection
- Wrote **Python** scripts to validate identified IQAs and analyzed performance metrics using provided range data
- Pre-processed point clouds using **Matlab** and implemented candidate PCQAs on provided scans of pavement

Projects

AutoLLMTuner **October 2025 - December 2025**

- Built an automated per-layer quantization system for LLM's that optimizes latency, memory, and output quality
- Created components for model loading, layer-wise quantization, benchmarking, and visualizations using **Python**.
- Represented model configurations as precision vectors and used an evolutionary algorithm to find a pareto frontier
- Ran large-scale experiments on Qwen-7B, Mistral-7B, and Trinity-Mini across 8× H200 GPUs, discovering that non-uniform precision vectors consistently outperform uniform quantization

Dolphin Chat Mask **September 2025 - November 2025**

- Designed a head-mounted real-time spectrogram system for live underwater visualizations of dolphin vocalizations
- Built a signal-processing pipeline on a Teensy 4.0, using **C++** to compute 256-point FFTs in real time
- Engineered a ring-buffered display pipeline with waterfall spectrogram rendering for zero-drop frame rendering
- Reverse-engineered a SCUBAPRO Galileo HUD for power, display, and roatary-knob inputs

Smart Hangboard **March 2025 - May 2025**

- Created a rock climbing hangboard using an Arduino Mega with **C++** processing to track workout metrics, manually wiring and soldering inputs from load sensing cells and capacitive touch copper tape
- Constructed the hangboard by CNC wood milling based on a CAD design, integrating hex displays within a laser-cut casing for real-time user feedback

Liftr **January 2025 - April 2025**

- Developed a social fitness app using a **React Native** framework, **Node.js** backend, and a **Firestore** NoSQL database, allowing users to log workouts, track progress, and connect with others
- Designed an optimized follower feed system using caching, significantly improving cost efficiency and scalability by reducing unnecessary Firestore reads

EMS Scheduler **February 2025 - March 2025**

- Built a role-aware shift scheduling platform for volunteer EMS teams using **React** and **Firebase** with dynamic calendar views and live availability filtering to prevent coverage gaps and role conflicts
- Implemented admin-controlled user provisioning and shift management for access control