Benjamin Kozel

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Education

Georgia Institute of Technology August 2024 – Present
Master of Science in Computer Science – Specialization: Machine Learning GPA: 4.00
Atlanta, GA
Relevant Coursework: Machine Learning, Deep Learning, Reinforcement Learning, High-Performance Computing, GPU Software/Hardware

North Carolina State University August 2018 – May 2022
Bachelor of Science in Computer Engineering, Electrical Engineering GPA: 3.85
Raleigh, NC

Skills

Embedded Systems:	BIOS/UEFI, memory training, SPI, I2C/I3C, UART, RTOS, TinyML, STM32, Raspberry Pi
Languages:	Python, C, C++, Bash, TypeScript, JavaScript
Frameworks & Tools:	PyTorch, Hugging Face, LlamaCPP, Svelte, FastAPI, FAISS, Redis, Docker, Git, CMake, Make
ML Techniques:	RAG, Unsupervised Learning, Transformers, Reinforcement Learning
Infra & DevOps:	Linux, CI/CD pipelines (Docker + systemd), SSH, YAML, Redis

Experience

Montage Technology, Inc. April 2023 – Present
Software Engineer II Atlanta, GA

- Initiated and designed a RAG pipeline with 3B LLaMA Instruct, LlamaCPP, PyTorch, FAISS, and Redis, streamlining DRAM spec search.
- Built clustering-based anomaly detection for DDR telemetry, catching early signal errors and accelerating validation.
- Created tools for DDR signal margining, integrated into embedded debug flows.
- Developed embedded firmware and memory training logic for Intel server platforms, improving boot stability.
- Optimized and debugged DDR training in BIOS/UEFI; supported DDR signals margining and 2D eye diagram tools.

Micron Technology, Inc. June 2022 – February 2023
Semiconductor Product Engineer Boise, ID

- Built validation routines for DRAM training, margining, and signal integrity on pre/post-silicon hardware.
- Automated test reports and memory data analysis with Python tools.
- Root-caused DDR training failures, supporting cross-functional debug.
- Supported embedded test benches for DRAM validation and margining.

Certificates

Certificates: Hugging Face Transformers Course Certificate, AWS Certified Cloud Practitioner, Edge Impulse Certified Edge AI Developer

Projects

Kozami 2025 – Present
Tools: AWS, Reinforcement Learning, RTOS, C/C++, Networking, TinyML, STM32, Raspberry Pi

- Built customizable media center on Raspberry Pi 5 with embedded system optimizations.
- Trained RL agent for dynamic TV bumpers synced to music.
- Deployed system with real-time constraints on embedded Linux platform.
- Integrated STM32 + TinyML voice control for hands-free use.
- Tuned RTOS scheduling for smooth real-time playback on constrained hardware.