

Nicholas Kozhemiakin

Boston, MA nkozhemiakin07@gmail.com nickkcozh.com LinkedIn GitHub

Education

Northeastern University

Bachelor of Science in Electrical and Computer Engineering

Boston, MA

Expected April 2029

Relevant coursework: Embedded Design, Circuits, Object-Oriented Design, Digital Design

Technical skills

Digital design	Verilog, SystemVerilog, VHDL; schematic and block design; digital logic
FPGA tools and boards	Vivado, Quartus, PYNQ, Kria KR260
Hardware and testing	KiCad, circuit board design and bring-up, oscilloscopes, logic analyzers, test automation
Programming and systems	C, C++, CUDA, Python, 6502 assembly, Bash, Linux, Git
Design and embedded	Fusion 360, SolidWorks, Onshape, ESP32, Jetson Orin Nano, Raspberry Pi

Experience and leadership

Bang & Olufsen Boston

Sales and Project Management

May 2026 to present

Boston, MA

- Develop audiovisual proposals and coordinate orders and installations around room layouts and networking needs
- Built a Next.js and TypeScript platform linking customer records, product configuration, quotes, and follow-up

Mindset Technologies

Founder and Lead Engineer

March 2026 to present

Boston, MA

- Lead brain-computer interface development across hardware, signal processing, and application integration
- Built Python and Linux acquisition and classification workflows and C and C++ interfaces for OpenXR, Unity, and Unreal

Northeastern University, Erdogmus Lab

Undergraduate Researcher, Neural Interfaces

January 2026 to present

Boston, MA

- Investigate low-cost EEG acquisition, embedded signal processing, and neural-interface classification

Aurus Inc.

Hardware and Robotics Engineering Intern

June 2024

Boston, MA

- Designed a solenoid-driven, microcontroller-controlled test rig to detect faulty payment-terminal inputs
- Developed Python automation for repeatable test cycles, measurement logging, and failure analysis

Selected engineering projects

KR260 FPGA ALU and Linux Integration | Independent project

September 2026

- Implemented an 8-bit SystemVerilog ALU on the Kria KR260 with AXI GPIO and Python control from Linux
- Passed all 524,288 on-board test cases; met 100 MHz interface timing in Vivado

EEG Acquisition PCB | Mindset Technologies

March to April 2026

- Designed custom EEG acquisition circuit boards in KiCad
- Reviewed circuit designs with electrical rules checks and simulation

CUDA EEG Signal Processing | Mindset Technologies

March to June 2026

- Developed GPU signal-processing software for EEG using CUDA and C++
- Built Python interfaces and tools for inspecting recorded signals

8-bit 6502 Homebrew Computer | Independent project

September 2021 to February 2022

- Designed and assembled clock generation, address decoding, memory banking, and memory-mapped input and output
- Debugged timing and signal integrity with an oscilloscope and logic analyzer; wrote and ran 6502 assembly

Awards and interests

Cursor Boston Hack-a-Sprint, agent-operations system

April 2026

Northeastern PEAK Base Camp Award, \$1,000 for BCI research

January 2026

Interests: Building synthesizers and custom instruments, woodworking, and espresso brewing