
Education

University of Illinois at Urbana Champaign

August 2021 - May 2025

- *Grainger College of Engineering*: B.S. in Computer Engineering
- *Cumulative Final GPA*: 3.37

Professional Experience

Data Annotation, Software Developer

April 2024 - February 2025

- Qualitatively improved 20+ AI coding models from contracted companies, targeting model efficiency and accuracy
- Involved developing multilingual software for machine learning, debugging generated code, and refactoring code

Research

Granular Synthesizer, DSP / Audio Engineering

December 2024 - April 2025

- Worked with Associate Professor Thomas Moon to develop a granular synthesizer plugin compatible with all DAWs
- Has functionality for independent pitch and speed control, grain parameter adjustment, randomization, and wetness

PURE Research Mentorship, Aerospace / Data Programming

August 2022 - January 2023

- Worked under PhD alongside a 10-person research team to develop aerospace research regarding wind tunnels
- Specifically aided in applying sorting algorithms and data conversion techniques in Python for research data

Technical Projects

Android-Embedded Security System, DSP Programmer

August 2024 - December 2024

- Implemented manual object and color recognition in real-time to identify and store people in integrated database
- Optimized self made DB-scan, k-means, and flood-fill algorithms for real-time processing on Android hardware

Laser/Voice Assisted Cat Toy, Senior Design Project Lead

August 2024 - December 2024

- Created autonomous cat toy capable of collision avoidance, treat dispensing, catch detection, and audio commands
- Lead a team of 3 with PCB development, CAD modelling, and Arduino programming for motorized outputs
- Award-winning and top 15% project, honorably recognized by professors during senior design awards ceremony

Illini Harmonics, Full-Stack Software Developer

January 2024 - May 2024

- Developed music-based social platform with GCP, SQL, and JavaScript for rating user's Spotify listening history
- Worked as backend, frontend, and web server developer, doing API connection, user interface, and data management

FPGA Soccer Heads, Lead FPGA Programmer

September 2023 - December 2023

- Led the recreation of a physics-based soccer game using Microblaze hardware, SystemVerilog, C, and SPI protocols

Honors and Certifications

Illinois Engineering Premier Scholarship, Recipient

August 2021 - May 2025

- Awarded a full-ride scholarship to attend for Computer Engineering, evaluated upon high academic achievement

Technical Skills

Programming Languages: SystemVerilog, C++, C, Python, SQL, Java, JavaScript, HTML, CSS, x86 Assembly

Hardware Design: FPGA, Microblaze, DE10, PCB Design, Embedded Android Systems

Tools And Platforms: Xilinx Vivado, Vitis, Android Studio, Pytorch, Tensorflow, Quartus Prime, Linux, GCP, AWS

Spoken Languages: English and Polish, both as a native speaker, intermediate Italian proficiency

Relevant Coursework

Digital Systems Laboratory: Worked with FPGA systems, transistor-transistor logic, and SystemVerilog

Embedded DSP Lab: Used image and signal filtering, data sampling, and transformation systems in Android systems

Computing Systems Engineering: Developed Linux operating system utilizing C and x86 assembly languages

Artificial Intelligence: Learned classification models, big data, natural language processing, computer vision, and robotics