

Frank D Zlomek

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Skills:

- Taking effective action from high level direction
- Consistently delivering results
- System Verilog (processor design)
- C++ Data structures, algorithms, heuristics, dynamic programming, branch and bound, time and memory optimization
- Cryptography, web and network security
- ML and CV projects using OpenCV, PyTorch, Julia
- Implemented a full stack compiler
- Assembly language assembler, linker, and simulator in C
- C, C++, Python, and Assembly microprocessor interfaces
- PCB and full system integration design for embedded systems
- RTOS for embedded applications

Work Experience:

- **Stryker Neurosurgical Design Engineer - Embedded Software:** August 2022 - Present
 - Embedded software engineer for wireless communications used in neurosurgical devices
 - System architecture design and implementation for communication management
 - Testing and optimization for resource utilization and communication latency
 - Offered position and started immediately after internship conclusion.
- **Stryker Neurosurgical New Product Development Intern:** May – August 2021, May – August 2022
 - Implementation and testing of BLE communication for wireless control of embedded devices
 - Initiated research that led to processor and component selection
 - Interfaced with and updated extensive existing code base
 - Strategically planning workflow to anticipate and prevent potential project bottlenecks
 - Earned distinguished performance rating
 - Asked to return for a second internship with the same group
- **Inovelli, Inc:** May 2019 - September 2020
 - Web developer and domain/server management to support corporate presence
 - Created new discussion forum to provide customer support and build community
 - Requested by corporation to work part-time during university studies, worked remotely from September 2019 – September 2020
 - Extended application to the cloud and used AWS best practices to manage server backup and disaster recovery scenarios to meet recovery time objectives and recovery point objectives

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University of Michigan, College of Engineering Graduate: August 2021 - May 2024

- Pursuing a MS in Embedded systems. Expected Graduation May 2024
- Focused courses in embedded systems and embedded control systems with CV and ML
- Major Design Experience EECS 473 – Advanced Embedded Systems Design
 - Working in a 5 person team to design a system based on a custom PCB for wireless guitar communication and digital effects.

University of Michigan, B.S.E. Computer Engineering: September 2018 - May 2021

- Graduated Magna Cum Laude, 3.7 GPA
- Major Design Experience EECS 470 – Computer Architecture Design
 - Led integration within a 5 person team designing a synthesizable, optimized, 3-way superscalar out of order RISC V processor in System Verilog

Extracurricular:

- Communications and driver software member for MRover, Michigan's Mars Rover student team. MRover is a multi-disciplined organization that designs and builds rovers to compete in the University Rover Competition
- 1000+ volunteer hours with a variety of organizations while in, and post High School
- 1st place 3D design and printing competition at Society of Automotive Engineers World Congress
- Numerous 1st place medals and regional championships in Science Olympiad
- 3 years as Science Olympiad and engineering Team Captain
- Numerous first place finishes for engineering, craftsmanship, innovation, and design in Square One engineering competitions
- Selected by Square One as a representative to exemplify student engineering achievements at the annual Michigan Science Teachers Association convention
- Designed, built, and programmed a competitive source/replica robot arm and control system, autonomous electric vehicles, underwater remote operated vehicles, and numerous similar projects
- Taught Arduino programming class to 15 high school students
- Assisted teaching two district-wide 3D design and printing summer classes for students
- Eagle Scout with bronze, gold, and silver palms. Vigil honor member
- Crew Leader for two separate multi-week backpacking treks at Philmont Scout Ranch
- Leader Positions at Troop, Chapter, Lodge (350+ members), and Section (2000+ members) levels in Scouting
- Fire Department Explorer, experiencing FD operations and providing service to the community

Portage Central High School, International Baccalaureate Diploma.: 2014-2018

- 4.0 GPA, 4.73 weighted GPA. Earned 41 college credit hours
- One of two recipients of science department award