

Zofia Polikarpus *(she/they)*

Embedded Software Engineer

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SouthEastern Michigan

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WORK EXPERIENCE

Product Engineer, Cypress Integration Solutions - *June 2013 - July 2022: Lapeer, MI*

- Development of firmware for bare metal embedded systems
- Development of software for internal tooling and user-facing applications
- Design and implementation of cryptographic systems and protocols
- Technical writing for project scope and requirements documents
- PCB layout and schematic design for digital electronics
- Active participation in industry standards bodies and working groups
- Automation and improvement of existing manufacturing and testing procedures

Software Tools Engineer, Magna Electronics - *July 2022 - present: Southfield, MI*

- Development of firmware and software for high reliability embedded test systems
- Design and implementation of networking and serial protocols
- Development of tester calibration procedures to improve measurement reliability
- Refactoring and improving large legacy codebases
- Troubleshooting and maintenance of test systems from hardware to database

Other Experience:

- Programming section leader in FIRST high school robotics team.
- Research assistant for lightweight cryptography university research project

SIDE PROJECTS

CTF Write-ups: Write-ups for solutions to competitive programming challenges.

language-cpu12: Open source Atom grammar for CPU12 assembly language.

3DRenderer: Open source ray-tracing 3D rendering engine written in Java.

EDUCATION

2019 B.Sc. in Computer Science, University of Michigan-Flint

TECHNICAL SKILLS

C, Assembly Language, Python, LabVIEW, Java, CANalyzer/CAPL, Protocol Analysis, Debugging (gdb), Technical Writing, Git, Digital Electronics Design, Electronic Diagnostic/Repair Equipment (oscilloscopes, logic analyzers, multimeters, power supplies, etc.), Microcontroller System Design, Serial Protocol Implementation and Design