

# Zofia Polikarpus *(they/them)*

Embedded Software Engineer

[zjp.io](http://zjp.io)

[github.com/zpolygon95](https://github.com/zpolygon95)

Southfield, MI

[contact@zjp.io](mailto:contact@zjp.io)

## 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