ZACHARY A. KONIK

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Objective

Hardworking individual looking to secure a responsible career opportunity in the Computer/ Software Engineering field, to fully utilize my training and skills, while making a significant contribution to the success of the company.

Education

Clarkson University [August 2021 – December 2025] [Potsdam, New York] [Computer & Software Engineering]

Work Experience

Technology & Development Intern [May 2024 – Present] [NHC Commercial Inc.]
- Developed websites on legacy and historical platforms.

Assistant Teacher [August 2020 – August 2024] [Berkley Building Blocks]
- Led groups of up to six children in activities to teach basic motor skills.
- Supervised children in outdoor activities.

Sales Assistant [2015 – January 2024] [KIFS Collectables — Oak Park, MI]
- Assisted in display cases for merchandise at conventions.
- Oversaw sales of collectable merchandise.

Projects

FPGA-accelerated Minecraft World Generation
- Developed an FPGA system for faster Minecraft world generation.
- Designed a C# GUI with TCP/IP to a Zybo Z7-20 FPGA.
- Integrated custom Vivado IP Cores with an ALU.
- Used Spigot framework to export generated terrain to the game.

2048-Game-NEATpy
- Functional 2048 game in Python for a Deep Learning course.
- Integrated NEAT-Python for AI-driven gameplay.

EE316-Project-5
- Developed a digital system on a Xilinx ZynQ processor to control a servo motor, LEDs, and a DC motor.
- Implemented interrupts, an ultrasonic sensor, and an LCD status display.

LLM-DiscordBot
- Created a Python Discord bot for AI tasks: image captioning, object detection, and OCR.
- Supports external AI models and asynchronous processing.

Extracurricular Activities

Capture The Flag Competitions — January 2021 – Present
- Scaled infrastructure using Google Cloud Platform (GCP) and Digital Ocean with Kubernetes and Docker, deploying custom software.

Eagle Scout Rank — May 2020
- Coordinated and raised $3,000 in funds, materials, and labour for a community service project.

Amateur Radio — K2CC
- Licensed amateur radio operator with experience in emergency communications and RF engineering.

Formula SAE Electric
- Team member developing electric race car systems and embedded vehicle controls.

Clarkson Open-Source Institute
- Contributing to open-source projects and promoting collaborative software development.

Skills

- **Programming Languages**: JavaScript, Python, C/C++, HTML/CSS, Java, Bash, R, VHDL.

- **Technologies**: React/Vite, Git, UNIX, Docker, kubernetes, NGINX, Google Cloud Platform, GitHub, PowerShell, Visual Studio Code.

- **Leadership**: Self-Directed, Quick Learner, Detail-oriented.