LinkedIn

# Barak Binyamin

US Citizen, Top Secret (TS) Clearance
LinkedIn | GitHub
barak.binyamin585@gmail.com | (518) 530-7193

Github

## OBJECTIVE

Passionate about building tools that are fun and simple to use. I have experience building full stack applications, working with embedded devices, & FPGA's. I'm seeking a full time position starting in June of 2024

## EDUCATION

**ROCHESTER INSTITUTE OF TECHNOLOGY,** Rochester, NY
Bachelor of Science in Computer Engineering, Minor in Mathematics, expected May 2024
**Core Courses:**

| | | |
|---|---|---|
| Digital System Design I, II | Computer Organization | Computer Architecture |
| Interface & Digital Electronics (CE) | Computer Science I, II | Software Eng. I |
| Assembly and Embedded Prog. | Applied Programming in C | Digital Electronics (EE) |
| Digital Signal Processing | Circuits I & II | Machine Intelligence |
| Data Communications | Hardware Security I | Graph Theory |
| Memory Centric Computing | Combinatorics | Codes & Ciphers |

## SKILLS

**Programming Languages**: Bash, Batch, Javascript, Python, Java, C & C ++, asm, MATLAB, Swift, VBA, VHDL
**Dev Environments**: Linux, MacOS, Windows
**Software:** Vue, React, Node.js, AWS, Docker, Helm, Harbor & Rancher, Git, Ghidra, Jira & Agile Development Life Cycle, Altera Quartus, ModelSim, Xilinx Vivado, Saleae, PlatformIO, Inventor, Fusion 360, Microsoft Office
**Platforms**: ESP, STM, ARM, Pi Pico, Raspberry Pi
**Protocols**: I2S, I2C, SPI, UART, CAN bus, JTAG, TCP, HTTP, WebSocket, MQTT, BLE, LTE, LoRA

## EXPERIENCE

**Sidus Space**, Cape Canaveral, FL **Jun 2023 - Feb 2024**
Software Engineering Intern - Automated the creation of development environments using Bash, contributed to hardware-software to send pictures down to earth from LizzieSat utilizing an FPGA, created tools to visualize health of crucial services using Docker & Node.js.

**Innov. Ecosystem & Emerging Tech**, Unisys Bluebell, PA (Remote) **Jun 2022 - Dec 2022**
Ecosystem and Emerging Tech. Intern - Developed scripts in Python & javascript to scrape and ingest unstructured & semi-structured company data. Utilized Helm, Rancher, Docker, Node.js & BrightIdea to build and deploy a service to the cloud that the team used to track business relationships, Researched regulatory technology, & aided team members by programmatically automating tasks.

**Cyber Division**, Systems Technology & Research (STR) Woburn, MA **May 2021 - Dec 2021**
Cyber Intern/Co-op - Developed radar signal analysis tools including an up-down converter, a LabVIEW radio control UI, and Python scripts to analyze and graph data using Matplotlib. Wired custom JTAG harness, and used openocd for my research into Arm Coresight & JTAG exploits, Utilized Node.js, & Vue to build & deploy a prototype full stack information system for managing company equipment, documentation, and hardware resources.

**Computer Engineering**, RIT Rochester, NY **Aug 2020 - Nov 2020**
Teaching Assistant / Mentor for 100 students - Assisted students with questions related to Arduino & computer science. Provided weekly help sessions for freshmen navigating computer engineering.

**DM Properties**, Rochester, NY **Jan 2020 - May 2021**
Residential Property Manager and Advertiser - Created advertising solutions including a website & flyers, coordinated with tenants, ensured maintenance of the property.

## PROJECTS

**Automatic BP Cuff** - Working with a team to innovate on the approach to blood pressure measurement
**Speakers** - Developing a Bluetooth splitter to enable wireless connection to multiple brands of speakers, hardware schematics, firmware, mobile app source and documentation shared publicly at github.com
**KioT-dl** - Developing a cross platform desktop application for scraping fully formatted music from Google, Genius.com, & Youtube. Documentation & source shared publicly at github.com
**Mic** - Developed a containerized voice controllable internet radio station using Docker, Node.js, Vue, & Meilisearch. Documentation & source shared publicly at github.com
**Population-Count** - Developed a hardware solution to a Population-Count algorithm, written in VHDL. Testbench and documentation shared publicly at github.com