



LinkedIn

Barak Binyamin

US Citizen, TS clearance expired 2022

[LinkedIn](#) | [GitHub](#)

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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 status 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