

Gabriel G Olafsson

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EDUCATION

Worcester Polytechnic Institute

Bachelor of Science in Computer Science, Minor in Data Science

Worcester, MA

August 2022 – May 2026

Essex Technical High School

Information Technology / Networking (Vocational-Technical Program)

Danvers, MA

August 2018 – June 2022

EXPERIENCE

IT Lab Systems Intern

December – January 2025

New England Biolabs

Ipswich, MA

- Developed ORBIT, a Python-based integration framework enabling standardized data synchronization between enterprise systems (SAP, Salesforce) and laboratory information management systems (Benchling)
- Architected Azure cloud infrastructure using Container Apps, Key Vault, and Container Registry to enable secure, scalable deployments
- Established standardized development practices and built CI/CD pipeline templates using GitHub Actions and Pytest for automated testing of future integrations

IT Operations Intern

May – August 2025

New England Biolabs

Ipswich, MA

- Developed a real-time network monitoring dashboard displaying bandwidth usage across 100+ devices with role-based access control
- Implemented containerized architecture with isolated Docker networks separating frontend, API, database, authentication, and monitoring services to maintain security while operating on one VM
- Built a PostgreSQL-backed credential management system via Flask REST API, enabling Prometheus to dynamically query and monitor admin-defined SNMP targets
- Integrated Azure AD auth, enabling Microsoft SSO and centralized access management through user groups

IT Helpdesk Technician Intern

May 2023 – January 2025

New England Biolabs

Ipswich, MA

- Provided tier 1/2 technical support for 500+ employees, resolving hardware, software, and networking issues
- Managed Windows Server infrastructure including Active Directory user provisioning, group policy configuration, and file server maintenance
- Configured and deployed network equipment including Cisco switches and wireless access points

PROJECTS

Home Lab Infrastructure | *Kubernetes, Docker, Cisco IOS*

2020 – Present

- Engineered network segmentation using VLANs across Cisco switches to isolate IoT devices, guest networks, and production services with firewall rules
- Configured a split-horizon DNS using Pi-hole for internal service resolution and deployed WireGuard VPN with double-VPN architecture chaining through Mullvad for secure remote access on untrusted networks

Boston Freedom Trail Interactive Map | *Agile/Scrum, Leaflet, JavaScript*

January – March 2025

- Collaborated in 5-person Agile team using 1-week sprints and daily standups to build interactive web map with turn-by-turn routing between landmarks, with one-click navigation to Google Maps from geolocated markers
- Implemented custom Leaflet.js markers and polylines with responsive UI

Web-Based Accessible PDF Reader | *Python, React, FastAPI*

November 2025 – Present

- Building full-stack web app to improve PDF accessibility through structure-preserving parsing and integrated text-to-speech with real-time word highlighting for visually impaired users
- Implemented local TTS engine with synchronized text highlighting

TECHNICAL SKILLS

Languages: Python, C, SQL (PostgreSQL), TypeScript, JavaScript, HTML/CSS

Frameworks & Tools: React, Node.js, Flask, FastAPI, Nginx

Cloud & Infra: Azure (Container Apps, Key Vault, AD), Docker, Kubernetes, Linux, Networking (VLANs, VPN, DNS)

DevOps & Monitoring: CI/CD (GitHub Actions), Prometheus, Grafana, Git, Pytest, SNMP