

Alexander Gershfeld

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DevOps / Cloud Engineer with hands-on experience building Docker-based infrastructure, AWS cloud environments, CI/CD pipelines, and scalable development environments. Computer Science graduate with experience supporting autonomous systems, cloud security, software development, and infrastructure automation

TECHNICAL SKILLS

Languages: Python, C/C++, Java, HTML/CSS, LaTeX, Javascript

DevOps & Cloud: Docker, CI/CD, GitHub Actions, Git, Bash, YAML, AWS EC2, API Gateway, Cloud Security, Linux

Developer Tools: Ardupilot, Mission Planner, Oracle VirtualBox, Visual Studio, Vim, OpenStreetMap

Concepts: Containerization, Infrastructure Automation, Unit and Integration Testing, REST APIs, Agile Development

EDUCATION

University of Central Florida

August 2021 – May 2026

Bachelor of Science in Computer Science

Orlando, FL

Relevant Coursework: Data Structures and Algorithms, Discrete Computational Structures, Computer Logic and Organization, Object Oriented Programming, Security in Computing, Artificial Intelligence, System Software, Programming Languages, Processes of Object Oriented Design, Algorithms in Artificial Intelligence, Analysis of Computer Communication Networks, Design and Analysis of Algorithms, Senior Design

Awards: President's Honor Roll Certificate 2021, 2023, 2024; Dean's List 2023, 2024

RELEVANT PROJECTS

VITALS | *Ardupilot, AWS, Bash, Docker, Mission Planner, Python, YAML, YOLOv11*

August 2025 - May 2026

Engineered an end-to-end hardware and software solution for Lockheed Martin designed to automate search and rescue operations through autonomous drone swarms. Built a "human-in-the-loop" architecture that uses computer vision and large language models to scan large search areas, identify targets of interest, and coordinate multiple UAVs from a single ground control station.

- Led DevOps and infrastructure efforts for a six-member engineering team, designing development and deployment environments for an autonomous drone swarm platform.
- Designed and deployed AWS cloud infrastructure using EC2, Elastic IP, and API Gateway, implementing automated server start/stop functionality to reduce operational costs.
- Designed a containerized microservices architecture using Docker and user-defined networks, improving portability, scalability, and reliability across development and deployment environments.
- Deployed an offline OpenStreetMap tile server as a Docker container in order to serve reliable and high speed map data, resulting in a query response time increase from 10 seconds to under 1 second.
- In charge of ensuring unit and integration tests are applied to new features as they are developed using a CI/CD pipeline with GitHub, as well as keeping Git workflow is adhered by the members of the project.

Dev Fusion | *React, Javascript, CSS, HTML, JSON*

June 2024 - July 2024

- Worked as project manager in creating a MERN stack application as a final project in Processes of Object Oriented Software Development, with a team of 6 others.
- Website that brings other software developers together in creating their own project, oriented on facilitating a team environment for users.
- Setup a Git flow with a CI/CD pipeline that incorporates unit testing on various elements in order to streamline to production pipeline.

2-4 Tree Database | *Java, C++*

December 2024 - April 2024

- Made a working 2-4 Tree in Java for integer values, out of curiosity and interest.
- Made several testing inputs in C++ and calculated the average expected run time for those tests of varied sizes.

CERTIFICATIONS

Google IT Specialist

August 2023

AWS Academy Cloud Security Foundations - Training Badge

April 2026

RELEVANT EXPERIENCE

UCF <i>Teacher's Assistant</i>	January 2025 – May 2025 <i>Orlando, FL</i>
• Responsible for holding labs for the class Introduction to Discrete Structures, involving lesson plans, creating problem sets, and a high level understanding of the class material. • Worked closely with the instructor of the course as well as other TA's to ensure grading and student assignments are handled accordingly. • Occasionally asked to make lesson plans and lecture the entire class instead of just in lab settings.	
Student Academic Resource Center @ UCF <i>Supplemental Instruction Leader and Peer Tutor</i>	December 2023 – January 2025 <i>Orlando, FL</i>
• Led sessions focused on teaching students how to learn and how to think through their course material, using methods such as Socratic questioning, resulting in an increase to testing average of 5 percent for those that attended my sessions. • Responsible for planning and executing interactive sessions for Introduction to Discrete Computational Structures and Object Oriented Programming • Prepared resources and practice questions requiring a critical analysis of the course material, as well as effective communication with the instructor to ensure rigor and relevance of the created resources. • Frequently collaborated with faculty members to help design lecture plans, problem sets, and exam reviews.	

VOLUNTEER WORK

NAPC Volunteers ICPC North American Championship	May 2024
Participated in the IT infrastructure of the ICPC North American Championship hosted at UCF. Also helped in serving lunch, building up the event, and breaking down the event	
STEM Day Volunteers Initiatives in STEM	October 2023
Hosted and guided a class of elementary students through campus to various STEM related workshops and events, as well as assisting in providing lunches.	