

# NAWFAL CHERKAOUI ELMALKI

Portfolio: [nawfalc.me](http://nawfalc.me)

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## EDUCATION

**University of Central Florida, Orlando**

May 2022 - December 2024

Bachelor's of Science (B.S.) in Computer Science

**GPA:** 4.0/4.0

**Coursework:** Object Oriented Programming, Data Structures, Discrete Math, Software Engineering

## WORK EXPERIENCE

**Salesforce**

May 2023 - August 2023

Software Engineer Intern | Ingress Gateway Load Balancing and Proxy Platform Team *San Francisco, CA*

- Migrated retrieving infrastructure configurations from Amazon S3 data store to API-based implementation using Golang and GraphQL in a Kubernetes operator controller consumed by 183 service teams.
- Decreased memory usage in API download request by 2000x.
- Refactored 200 lines of code to common package, reducing technical debt and duplicate functions.
- Added 80% unit test coverage to middleware before deploying to development and test cloud environments.
- **Technologies used:** Golang, GraphQL, Spinnaker, Istio, Envoy, Helm, JSON.

**NASA Marshall Space Flight Center**

January 2023 - May 2023

Software Engineer Intern | Application and Platform Services Team *Huntsville, AL*

- Scripted Apache bot filter to block malicious HTTPS traffic based on IP and user agent with Traefik.
- Reduced malicious web server requests by 18%.
- Accelerated Red Hat 8 Linux patching by 23%, through shrinking OpenShift CI/CD pipeline.
- Added SonarQube to Jenkins pipeline to automatically QA developer code.
- **Technologies used:** Docker, Kubernetes, Yaml, Jenkins, Python.

**School District of Osceola County**

July 2021 - January 2023

Software Development Intern | Web Server Security Team *Kissimmee, FL*

- Automated form processing with Selenium, accelerating repair ticket completion by 19%.
- Optimized software install time by 45% using SSH, Azure, PowerShell, and Active Directory.
- Minimized malicious LAN traffic by 16% through scripting Cisco firewall policies.
- Hardened database security by scanning and closing insecure ports with Wireshark.
- **Technologies used:** Java, Selenium, Azure, Shell, Wireshark.

## PROJECTS

**Amaze**

ShellHacks 2022 Competitor

September 2022 - September 2022

- Spearheaded 3-member team to develop web application to enhance user experience on Amazon by filtering and presenting the platform's bestsellers in a more intuitive manner.
- Our solution aimed to simplify user searches and assist them in making informed purchasing decisions.
- **Technologies used:** Git, React.js, Bootstrap, AWS S3, Amazon Product Advertising API.

**NASA Community College Aerospace Scholars**

Project Manager

October 2021 - August 2022

- Led 7 member team to develop pharmaceutical delivery drone powered by Arduino for team challenge.
- Crafted Preliminary Design Review with scientific goals, trade studies, and budget estimates.
- Designed website to present at NASA Langley Research Center.
- **Technologies used:** HTML, CSS, JavaScript, Arduino, Google Cloud.

## SKILLS

**Programming:** Python, Java, GoLang, C, HTML, CSS, Javascript, Shell, GraphQL, Arduino, Yaml  
**Technical:** Linux, Agile, AWS S3, Docker, Kubernetes, TCP/IP Networking, SSH, Git, Helm  
**Certifications:** CompTIA Security+, CompTIA Network+, CompTIA A+