Omar Abotahoon

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Portfolio: https://omar-abotahoon.vercel.app | LinkedIn: https://www.linkedin.com/in/omar-abotahoon | GitHub: https://github.com/Omar-abt

EDUCATION

University of Ottawa - Bachelor of Software Engineering **Ottawa, ON | Sep 2020 – (Exp.) Dec 2024**

- **Standing:** 4th Year Honours Program, GPA: 3.9/4
- **Relevant Courses:** Data Structures & Algorithms, Object Oriented Programming (OOP), Advanced Programming with C++, Databases, Operating Systems, Software Construction, Real Time Embedded Systems, Data Communication and Networking, Data Science

SKILLS

- **Programming Languages –** TypeScript, JavaScript, Java, Python, SQL, C++, HTML, CSS
- **Frameworks and Tools –** React, Node.js, Next.js, Spring, Flask, Git, CI/CD pipelines, terraform, Unix/Linux, wsl, Intellij, Firebase, Cloud functions, mySQL, PostgreSQL, Terraform, Shell Scripting, Junit, Jest, REST APIs, Maven
- **Cloud Computing & DevOps –** AWS (IAM, VPC, ECS, RDS, EC2, secrets), Azure, Firebase, Kubernetes, Docker, Ansible, OpenShift
- **Agile –** Agile/Scrum, standups, JIRA, Confluence, Wrike, GitHub issues

WORK EXPERIENCE

Software Developer Intern **Ottawa, ON | May 2024 – Present**

Canadian Internet Registration Authority | CIRA – Cyber DNS Team

- Spearheaded the development of an **Endpoint Security and Detection service**, by developing and testing a **Java Spring Boot** API **microservice**, creating **GitLab CI/CD pipelines** for continuous integration, and deploying the containerized application to **AWS ECS** using **terraform**.
- Improved the **Single sign-on (SSO)** feature interfacing with **keycloak** authentication by mapping and verifying user **LDAP** information to keycloak.
- Wrote server-side and client-side code using **typescript**, **Next.js** and **PostgreSQL** for a Cyber Security DNS SaaS product that is capable of detecting over 100,000 malicious domains per day.

Software Developer Intern **Ottawa, ON | Sep 2023 – Dec 2023**

Field Effect Software – Cyber Range Development Team

- Architected and built over **6 different** fast and efficient **REST API endpoints** by collaborating with the design team and back-end developers to service a set of reports for courses, exercises and student transcripts on the Cyber Range platform.
- Leveraged **Java** and **Spring** to construct **DTOs (Data Transfer Objects)**, **DAOs (Data Access Objects)** and **back-end services** that queried data from a **MySQL database** using **CRUD operations** to create **client/server applications**.
- Crafted a **React state pattern system** with custom **hooks** and wrote **unit tests** using **Jest** achieving over **90% code coverage**.
- Optimized an endpoint by **reducing its response time from 35 seconds to 4 seconds.**

Project Manager **Ottawa, ON | Sep 2022 – Apr 2023**

Centre for Entrepreneurship and Engineering Design | CEED – Project Management Office Team

- Managed and delivered a 4-month **virtual reality padel ball tracking project** throughout its entire lifecycle by following an **iterative** approach.
- Facilitated **requirements gathering**, **risk assessment**, developing **design criteria**, producing **prototypes**, and **evaluating project performance**.
- Utilized **agile** methodology practices and **lead weekly standups** with development teams, as well as communicated updates to stakeholders.

Cloud Infrastructure Engineer Intern **Ottawa, ON | Jan 2022 - Aug 2022**

Canada's Centre of Excellence in Next Generation Networks | CENGN – Cloud Infrastructure Team

- Used **Python**, **YAML**, **Ansible** and **REST APIs** to engineer a Python script that can deploy entire **Hybrid Cloud** environments in under 5 minutes.
- Developed software solutions in a **DevOps** culture using **Scrum Agile** methodology including **sprints**, daily **standups**, and **sprint retrospectives**.
- Deployed containerized microservice applications using **Docker, Kubernetes** and **Cloud** technologies including **OpenStack and AWS.**

System Administrator Intern **Ottawa, ON | May 2021 - Aug 2021**

Agriculture and Agri-Food Canada | AAFC – High Performance Computing Team

- Created a **storage management system** using **Bash scripting** serving **over 1000** scientists by allowing them to effectively store research data.
- Wrote **automation scripts** and created complex **pipelines** to **automate repetitive tasks** like user creation and resource allocation, **reducing the time taken by this process by 1 hour** for each user.

CERTIFICATIONS

- **Azure Fundamentals (AZ-900)** – Microsoft Certificate
- **CENGN Cloud System Specialist** – CENGN
- **Introduction to TensorFlow for ML** – deeplearning.ai

PROJECTS

IntelliStudy - https://github.com/IntelliStudy/IntelliStudy

- An AI powered Study tool that can generate custom quizzes allowing a user to test their knowledge using study note files.
- Technologies: **Node.js, Firebase Auth, Firestore, Cloud Functions, OpenAI API, React**

Flight Delays Data Warehouse - https://github.com/Omar-abt/FlightDelays-DataScience

- Designed and implemented a data mart through the ETL process, performing data analytics, creating OLAP queries and data mining.
- Technologies: **Python, Pandas, PostgreSQL, Jupyter notebooks, Sklearn, Matplotlib, Looker Studio**

LinkedIn Job Scraper - https://github.com/Omar-abt/linkedin_job_scraper

- A sophisticated job scraper that can look up hundreds of job postings, scrape the posting details, clean the data and output it to a csv file.
- Technologies: **Python, Flask, Selenium, Docker, Pandas, NumPy, TypeScript**