

Aser Khamis

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in aser-khamis

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</> Devpost

SKILLS

Programming: Python, Java, C++, JavaScript, TypeScript, C++, Ruby, GO, C, C#, PHP, HTML/CSS, SQL, Perl

Tools: AWS, Kubernetes, Docker, Jenkins, YAML, Groovy, Selenium, Pandas, PostgreSQL, NLP, JIRA

Frameworks/Libraries: ReactJS, FastAPI, NodeJS, VueJS, Django, Flask, jQuery, SocketIO, Bootstrap

Other: Git, GitHub, Bash, Jira, Linux, Unit Testing, Traefik, Metrics, SSH, SCP, Machine Learning

EXPERIENCE

Amazon

Toronto, ON

Software Development Engineer Intern

May 2023 - August 2023

- Automated daily generation of **CSV** file, replacing manual weekly process, resulting in a **7x** increase in **data** frequency.
- Utilized **AWS** services (**AWS Batch**, **ECS**, **EC2**, **ECR**) for scalable infrastructure, reducing data processing time by **83%**.
- Leveraged **Docker** and existing dependencies for streamlined **automation**, improving deployment efficiency by **67%**.
- Accelerated **machine learning** training by **77%**, distributing workloads across **Ray clusters** and **EC2** instances.
- Benchmarked **EC2 flavors**, optimizing **automation** by **62.5%**, simultaneously achieving **43.4%** reduction in **hourly costs**.
- Progressed **autoscaling** and **self-healing** solutions by writing integrated **monitoring** processes to **deployment** methods.
- Developed **documentation** detailing **automation workflow**, addressing challenges faced, and providing solutions.
- Implemented best practices of **Agile** methodology to improve speed of **software delivery** processes by **70%**.

Tucows

Toronto, ON

Software Engineer Intern

May 2022 - April 2023

- Enhanced work efficiency by **75%** through **YAML**, **Jenkins** and **Groovy**-driven automation of **CI/CD pipelines**.
- Reduced monthly costs exceeding **\$105,000+** by leveraging **Fluentd** to parse & filter **logs** for **Elasticsearch & Datadog**.
- Developed a monitoring gateway using **HCL** and **Traefik**, facilitating in-depth analysis of metrics and traces in **Grafana**.
- Streamlined infrastructure provisioning with **Terraform & Ansible**, deploying via **OpenStack** for server automation.
- Managed deployments in **Hashicorp Nomad & Kubernetes**, creating clusters and deployments into **Docker** containers.
- Instrumented existing **Python** and **NodeJS** applications using **OpenTelemetry** API and SDK to export **metrics & traces**.

Toronto Metropolitan University

Toronto, ON

Research Assistant

May 2021 - December 2021

- Leveraged **Machine Learning** and **NLP** dependencies to build **predictive models** analyzing datasets up to **10M+** records.
- Developed **scalable** end-to-end **deep learning** algorithm in production environment, increasing efficiency by **62%**.
- Wrote a script using **Python** to remove near-duplicates from datasets, improving accuracy of results by **113%**.
- Utilized **SSH**, **SCP**, **Vim**, and **Bash** through remote **Linux** environment to monitor deployment processes & **debug** scripts.

Boehringer Ingelheim

Remote

Product Management Intern

July 2020 - August 2020

- Contributed to Agile-driven **sprints**, creating strategic plans and roadmaps for internal **software** launches.
- Managed **workflows & pipelines** using internal **CRM** system, including ticket management and survey creation.

PROJECTS

Mental Health Crisis Detection AI Chatbot

Python | JavaScript | ReactJS | FastAPI | GPT-3.5 Turbo | NLP | RoBERTa | Firebase | Bash

- Developed responsive AI chatbot with **ReactJS & FastAPI**, integrating **OpenAI GPT-3.5** for personalized interactions.
- Implemented **RoBERTa** model for **sentiment analysis**, adapting responses based on users' emotional states.
- Spearheaded robust system with **NLP** algorithms to detect distress signals & alert emergencies.
- Integrated **Firebase databases** for secure data storage and authentication, fortifying chatbot reliability.

Multiplayer Drawing Game

JavaScript | ReactJS | NodeJS | SocketIO | RabbitMQ

- Developed engaging multiplayer word-teaching game with **ReactJS**, **NodeJS**, and **SocketIO**.
- Enabled **real-time** drawing sharing via **P2P** connections using **SocketIO & RabbitMQ**.
- Demonstrated excellence with **Unit Tests** and received recognition at **NewHacks 2021**; wrote **documentation** for use.

EDUCATION

Toronto Metropolitan University

Toronto, ON

Bachelor of Engineering, Computer Engineering. **CGPA: 3.93**

September 2019 - May 2024

- Coursework:** Data Structures & Algorithms, Databases, System Design, Machine Learning, Computer Vision.