

Miten Soni

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EDUCATION

University of Ottawa

Ottawa, ON

Bachelor of Science in Computer Science (COOP)

Sept. 2020 – Dec. 2024

- GPA: 8.52/10
- 4x Merit scholarship/Dean's honor list | Kelpie Robotics (uOttawa MATE ROV) | uOGlobal | Boxing club
- Courses: Data Structures & Algorithms, OS, Design & Analysis of Algorithms, Data Communications & Networking

TECHNICAL SKILLS

Languages: Python, Java, Golang, Javascript, Typescript, C++, C, C#, Bash, HTML, CSS, SQL.

Frameworks: React, SpringBoot, Django, FastAPI, Angular, Thymeleaf, JUnit, MVC, OpenCV, Cypress.

Technologies: Kubernetes, Docker, AWS Serverless, Helm, OpenShift, Ansible, Jenkins, Firebase, Drupal, CircleCI, Git.

Certification: Certified Kubernetes Application Developer, Developing Serverless Applications with AWS.

EXPERIENCE

Trend Micro | Container Security

Ottawa, ON

Full Stack Developer Intern

May. 2024 – Aug. 2024

- Implemented front-end functionality for 4 admission-control security policies with TypeScript, React and Cypress E2E testing, ensuring backward compatibility and payload consistent with API spec. Used MSW mocking library to test.
- Freed 80% of AWS Lambda storage by deploying a lambda janitor job using Serverless to regularly delete older, unused lambdas.
- Handled missed deletion events by k8s informer in 5 in-cluster microservice components using Golang.
- Reduced repetitive duplicate efforts required to maintain consistent versions of 3rd party open-source tools used for image SBOM generation by utilizing a Golang sdk.

Ribbon Communications | Application Server

Ottawa, ON

Software Development Intern

Sept. 2023 – Dec. 2023

- Worked in a team to prototype the migration of Ribbon's legacy Unified Communications server (Application Server) to a cloud-native environment in Kubernetes, using Helm charts and an OpenShift environment.
- Reduced microservices startup time by 70% by creating Dockerfiles putting all initialization steps into the build.
- Configured a Certificate Authority in K8s using cert-manager to issue the needed TLS certificates.

Ribbon Communications | Cloud & Edge

Ottawa, ON

Software Development Intern

Jan. 2023 – Apr. 2023

- Enabled re-use of generally-available, archived build loads for deployment to AWS CloudFront by separating deployment-specific configuration information from the web application using Angular services.
- Restructured Jenkins pipeline to support 3 more build options, enable reuse of binaries verified by the test team and reduce time needed for configuration updates to DynamoDB by 80%.
- Migrated Ribbon's single sign-on app (One Portal) to use the latest versions of AWS CDK and SDK resulting in performance improvement due to bundle size reduction by 75%.

University of Ottawa | IT Department (Web Services team)

Ottawa, ON

Web Developer Intern

May. 2022 – Dec. 2022

- Worked as part of an agile team to upgrade the uOttawa websites and web apps from Drupal 7 to Drupal 9 with a redesigned modern theme and user-friendliness using PHP7, JavaScript, HTML and CSS.

PROJECTS

Honours Project - IBM Centre for Advanced Studies | *In Progress*

- Researching & developing a microservice that utilizes LLMs for NLP and Named Entity Recognition to restructure and analyze phishing attack exfiltration logs to identify the victims and information stolen.

Sparta RAG chatbot (Trend Micro Hackday 24) | *Python, FastAPI, LLamaIndex, StreamLit*

- Designed a chatbot to provide accurate responses for company-specific questions using Retrieval Augmented Generation to add relevant context to user queries to GPT from a vector knowledge-base of Slack channels and Confluence docs.

Information Retrieval System | *Python, BM25, HuggingFace, Deep learning models*

- Developed an indexing and retrieval system for over 80,000 documents using the BM25 algorithm enhanced with deep learning techniques (transformers & BERT) scoring the highest MAP score among participants at 42%.

Prizm (Hack the Hill 2023) | *React, Python, SocketIO, OpenCV, Pandas*

- Designed a web-app using React and Python to allow colour-blind users to identify the colour of any object by clicking on the live video feed from their camera and included text-to-speech output for increased accessibility.

Dental Clinic Management System | *Java, Spring, PostgreSQL, Thymeleaf, HTML, CSS*

- Designed and developed a web application for a dental clinic to manage appointment booking, dentist and patient records using Spring Web and the Model-View-Controller design pattern.