

Ali Asjad

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EXPERIENCE

Research Assistant II – Web Developer

May 2022 – Present

University of Guelph

Guelph, ON

- Designed and developed a user-friendly front-end dashboard for Ontario sheep farmers using **Vue.js**, enabling over **500 active users** to seamlessly add, retrieve, and manage critical livestock data.
- Built and optimized the backend using **Django** and **Python**, implementing **RESTful APIs** to handle data storage, retrieval, and processing with **99% uptime**, ensuring a reliable user experience.
- Implemented and integrated custom algorithms in the backend that **calculate mating results with 95% accuracy**, based on the genetic and physical characteristics of male and female sheep, helping farmers **optimize breeding decisions by 30%**.
- Developed and configured **Docker containers** for **Vue.js**, **Flask**, **Express.js** and **MySQL**, successfully deploying within a secure **VPS environment**, ensuring robust security measures

Software Intern

May 2021 – Aug 2021

TereSol Pvt. Ltd.

- Engineered modular microservices architecture for front-end, back-end, and middleware using **Quarkus**, **Java**, **Vue.js**, and **MySQL**, **enhancing system scalability by 50%** and enabling seamless feature integration.
- Developed and optimized RESTful APIs leveraging Insomnia and MySQL, **reducing database query execution time by 35%** and improving data retrieval efficiency for users.
- Improved collaboration and deployment efficiency by implementing **best practices for microservices**, ensuring clear communication between components and faster response times for end-users.

Technical PROJECTS

Rate My Courses / AWS RDS, Django, React, MySQL

Oct 2024 - Present

- Developed a course review application** using **Django** and **React**, enabling users to submit, tag, and view course reviews with features like **professor ratings** and **course difficulty**
- Automated deployments by creating **CI/CD pipeline** with **GitHub Actions** to deploy to **Hostinger VPS**, reducing deployment time **from 20 minutes to 5 minutes**.
- Designed and implemented a robust relational database schema to **manage over 1,000 course reviews and tags**, leveraging Django ORM for efficient interaction with MySQL
- Deployed the application in a production environment, configuring nginx as a reverse proxy and Gunicorn as the WSGI server, **ensuring scalability and optimal performance**
- Migrated the database to AWS RDS, **improving application scalability by 40%** and supporting seamless collaboration among a team of 3 developers and a project manager

Course Scheduler / Python, Flask, React, PostgreSQL, AWS

Sept 2022 – Dec 2022

- Collaborated with a team to develop a full-stack web application, using Flask for the REST API and React for the front end, hosted on AWS
- Parse data from HTML files using **Python**, exporting it to **CSV files** and hosting the result on **DynamoDB**
- Developed **REST APIs** with **Python** to connect the backend to the front end, **enhancing data interaction efficiency by 25%**
- Set up **CI/CD pipelines** using GitLab, automating testing and deployment, **reducing manual errors by 40%**

TECHNICAL SKILLS

Programming Languages: Java, Python, C, SQL (Postgres/MySQL), NoSQL (DynamoDB), JavaScript

Frameworks: Vue, Node.js, Flask, Django, Quarkus, React/Next.js

Developer Tools: Git, AWS (RDS, EC2), nginx, Gunicorn, Postman, Docker, Firebase, REST APIs

EDUCATION

University Of Guelph

Guelph, ON

Bachelor of Computing in Computer Science, Minor in Business Economics

Sep. 2019 – May 2024