ZAHIN M. ZAMAN

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PROJECTS

Altruist



- Mobile and web platform to promote altruism and the assistance of senior citizens during a difficult time
- Assembled **Diango** server with REST API using Django REST Framework including user login and registration
- · Designed and constructed elegant, crossplatform mobile application using React Native and Expo

cram.ai



WinterHacklympics - Best Use of Google Cloud

- Web platform that uses natural language processing to analyze lecture videos and generate learning flashcards
- Incorporated NLTK and Google Cloud Language to summarize lecture videos
- Generated flashcards with questions and answers in a user-friendly frontend served by a Flask backend hosted on Heroku



Hackwestern - Perfect Pitch Award Hackwestern - FuturFund: Women in Financial **Literacy Award**

- A mobile app that provides a fun, yet educational way for children and parents to manage their finances
- Developed & deployed fin-tech mobile application with stack and tab navigation using React Native and Expo
- Assembled a document-based Firebase backend to store user credentials

EduSource



HackTheU - Best Use of Google Cloud Hackrithmitic - Best Use of Google Cloud

- Web application for enriched remote education, crowdsourcing course materials and scientific equation recognition
- Employed Google Cloud Vision to implement scientific equation recognition from handwriting
- Built Flask app with HTML, CSS, and Bootstrap, and managed database ORMs in Flask SQLAlchemy and SQLite3

TECHNICAL SKILLS

Languages: Python, Go, JavaScript/TypeScript, C++, HTML, CSS, Bash Frameworks: Django, React.js, MySQL, PostgreSQL, Flask, Ruby on Rails, FastAPI, NumPy, pandas, TensorFlow, Matplotlib

Tools/Services: Docker, Kubernetes, AWS, Google Cloud

EDUCATION

University of Waterloo

B.A.Sc. in Electrical Engineering

Sept 2018 – May 2023

Term Dean's Honour List, for outstanding academic performance

Artificial Intelligence Degree Specialization

EXPERIENCE

Software Developer

1Password

Sept 2022 - Dec 2022

- Expanded backend functionalities using **Go** and **Stripe API**, including payments module, subscriptions, trial and paid tiers, and promotions
- Improved frontend credit card forms and payment flows using **React** and TypeScript
- Dockerized Apply Pay and subscriptions microservice with MySQL database and RabbitMQ message broker

Full-Stack Developer

Prodigy Education

Jan 2022 – April 2022

- Maintained **OAuth 2.0** & **OpenID Connect** identity service built on **Ruby on Rails**
- Leveraged multi-staged **Docker** builds to optimize production server container hosted on Amazon ECS, reducing image size by 58.4%
- Designed & documented **Apache Kafka** calls to stream backend server events for data tracking and verified data payloads with unit tests utilizing **RSpec** & **Minitest** on Rails

Full-Stack Developer

May 2021 – Aug 2021

- Developed & managed authentication security, community articles page, and voucher redemption system for Nokia Network Developer Portal on **Django** server with an **Azure** MySQL database
- Secured backend using **Django REST framework** API permissions, cross site scripting protection, and honeypot setups
- Composed unit tests for Django forms, models, and API endpoints, and configured **Docker** image for **Gitlab CI** automation testing

Software Developer

Wind River Systems

Sept 2020 – Dec 2020

- Devised thread-safe functions in C and inline **Assembly** to fix multithreading and memory-based defects for VxWorks RTOS
- Developed interactive application in **PyQt5** that assists in writing git commit messages and verifies status of Jira issues and code reviews

Hardware Verification Engineer

Qualcomm

Jan 2020 – May 2020

- Attained **20%** increase in functional coverages by engineering SystemVerilog assertions to verify processor design
- Automated formal verification using Perl scripting to extract design hierarchy and formulate assertions