[](mailto:zm2zaman@uwaterloo.ca)

**TECHNICAL SKILLS**

ZAHIN M. ZAMAN

[](https://github.com/alvii147/cram.ai)[](https://devpost.com/software/cram-ai)[](https://cram-ai.herokuapp.com/)[](https://youtu.be/P16aGODx5OU)[](https://github.com/christylo/kardv3)[](https://youtu.be/3eHyQgif-yI)[](https://devpost.com/software/k-kard)[](https://github.com/alvii147/EduSource)[](https://devpost.com/software/edusource)[](https://youtu.be/-2_g7Y_6jL8)[](https://youtu.be/0xuxMHK1F9Y)[](https://github.com/alvii147/Altruist)[](https://devpost.com/software/altruist-2fvaod)[](https://devpost.com/alvii147)[](https://github.com/alvii147)[](https://www.linkedin.com/in/zahin-zaman/)[](https://zahin-zaman.vercel.app/)

**Software Developer**

*Wind River Systems | Sept 2020 – Dec 2020*

* Devised thread-safe functions in **C** and inline **Assembly** to fix multi-threading 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

**Display 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

**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

**EXPERIENCE**

**Full-Stack Developer**

*Nokia | May 2021 – August 2021*

* Developed & managed authentication security, community articles page, and voucher redemption system for [Nokia Network Developer Portal](https://network.developer.nokia.com) 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

**Open-Source Software Developer**

*codePrentice | Sept 2020 – Present*

* Expanded Python multiparty-computation library, **MP-SPDZ,** to support **CNNs** including SqueezeNet, ResNet, and DenseNet
* Composed [comprehensive tutorial](https://stumpy.readthedocs.io/en/latest/Tutorial_Annotation_Vectors.html) based on Matrix Profile research paper for Python time series analysis library, **STUMPY**
* Optimized cache utilization in STUMPY's multi-threaded Matrix Profile computation by implementing tiling scheme algorithm using **NumPy** arrays and **Numba** just-in-time compilation

**EDUCATION**

**University of Waterloo**

*B.A.Sc. in Electrical Engineering, 4th Year | Sept 2018 – May 2023*

* **Term Dean’s Honour List,** for outstanding academic performance
* **Artificial Intelligence Degree Specialization**

**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**

**Altruist**

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

**k kard**

Hackwestern – **Perfect Pitch** & **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

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**PROJECTS**

**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**

**Languages:** Python, C++, Go, JavaScript, HTML, CSS, Bash

**Frameworks:** Django, React.js, MySQL, PostgreSQL, Flask, Ruby on Rails, NumPy, pandas, TensorFlow, Matplotlib

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

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