Arsalan Bin Najeeb

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EDUCATION

GEORGE WASHINGTON UNIVERSITY
M.S. Computer Science
May 2025
KNOX COLLEGE
B.S. Computer Science &
Business & Management
Cum Laude
GPA 3.6 | Jun 2020

TECHNICAL SKILLS

PROGRAMMING
Proficient (5+ years)
Java • Python
Familiar
Groovy • SQL • NoSQL • Vue • React
JavaScript • Grails GORM • Rust • Php
React Native • Laravel • Django • C
HTML5 • CSS • Next.Js

TECH STACK
AWS • GCP • Forge • Docker • WSL2
Ubuntu • Git • IntelliJ • EMACS
Kubernetes • VScode • Apache • LaTeX

LINKS

LinkedIn: //**arsalanwyne**
Website: //**arsalan.app**

AWARDS

1st place Student Research | Consortium of Computing Science Colleges MW 2018

Philip Haring & John Houston Award | Promoting International Understanding

Deans Honor List

Mortar Board Member

Sigma Xi Nominee

PUBLICATIONS

[1] M. M. McGill et al. Exploring the enacted computing curriculum in k-12 schools in south asia: Bangladesh, nepal, pakistan, and sri lanka. *Association for Computing Machinery*, 2020.

EXPERIENCE

Graduate Research Assistant | GWU

Jul 2024 - Present

- Created & Implemented custom LLVM passes for the Rust Compiler
- Designed and developed benchmarking programs in Rust to evaluate performance of popular crates such as Hyper and Tonic (Protobuf, gRPC)

LLM + AI Student Research | GWU

Jan 2024 - Present

- Investigated LLM models for discovery work in Weak to Strong Alignment
- Developed an LLM-based reward model to guide another model's outputs via reinforcement from AI feedback (RLAIF)
- Finetuned OpenAI GPT-4o, GPT-4o-mini & BERT then evaluated on SST-2
- Evaluated safety of finetuned models vs pretrained models & leveraged Weights & Biases to log our training data
- Engineered model interpretability techniques for transformer architectures
- Trained ML models locally using **PyTorch** & Huggingface API for multiple classification & regression tasks

Software Engineer | TWST Events (Previously CSS)

May 2021 - Aug 2023

- Repaired 2 inherited **Java** systems by initial bug fixes & system updates
- Visualized & overhauled UI for 2 **Vue** reactive front end sites while following OWASP rules for security and W3C standards for accessibility
- Created **RESTful** API endpoints for 2 backends, a **Micronauts(JVM) & Grails GORM** and a LAMP based **Perl** app
- Optimized legacy code by refactoring data flow and engineering reusable service helpers to improve performance and maintainability
- Remodeled **MySQL** database schema to reflect new features updates by migrating changes through flyway for multiple **Kubernetes** environments
- Leveraged webhooks to develop internal tools with **Next.Js**, **Firebase** & **GCP** to monitor real time detection of RFID readers and tags
- Maintained Kubernetes clusters & AWS environments by maintaining regular check-ups and adjusting scaling policies using K9s

Full Stack Engineer | Stream Engine

Nov 2020 - May 2021

- Developed a shared database & shared schema multi-tenant application with a team of 3 backend developers
- Designed & implemented schema for **PostgreSQL** back-end & created **REST** API endpoints using **Django** & **Django Rest Framework**

HPC Research Assistant | Knox College

Jun 2018 - Jun 2020

- Developed a task mapping algorithm for Dragonfly an HPC machine that decreases latency for the cluster
- Implemented a facial recognition algorithm in **C** for the Raspberry Pi then parallelized code to run 50% faster on the quad core chipset by **OpenMP**

LEADERSHIP ACTIVITIES

SEAS Ambassador | GWU

Jun 2024 - Present

- Collaborating with a team of 6 ambassadors to overcome academic and social difficulties for students in the School of Engineering and Applied Sciences