

HARIS ADNAN

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Education

Duke University

Aug 2020 – May 2024

BSc in Computer Science, BSc in Physics, Innovation & Entrepreneurship Certificate
100% Karsh Scholarship

GPA : 3.7

Relevant Coursework

- Advanced Software Design & Implementation
- Computer Systems
- Design & Analysis of Algorithms
- Graphics Software Architecture
- Data Structures & Algorithms
- Discrete Mathematics for CompSci
- Data Science
- Server Side Web Development

Experience

Dell Technologies

July 2024 - Present

Software Engineer 1

Austin, TX

- Designed scalable control path software for Dell **PowerStore**, enabling **40%** code re-usability across products like PowerFlex and reducing development time by **30%** using **RxJava** as a reactive library, **Bash**, and **Python**.
- Engineered mirroring **Witness** service with automatic failover, reducing downtime from **15+ min** to **< 30 s**.

Dell Technologies

June - August 2022, May - August 2023

Software Engineer Intern

Raleigh, NC, Austin, TX

- Renewed Dell client **telemetry processing** database by engineering scalable **Python** and **Java Kafka** producer & consumer microservices - **6M+** messages hosted. Compressed with **Snappy** for **30 %** less storage consumption.
- Led use case separation in data flow, integrated with **ELK stack**, and was acclaimed by Dell Leadership for innovation.
- Created intelligent **Python chat bot** to identify & predict build error causes for developers with **98.7%** accuracy.
- Engineered deep NLP **Machine Learning** models for error processing using **NLTK**, **TensorFlow**, and **Jenkins**.
- Integrated chat bot into Dell Developer Ready Platform. Bot used by **7,000+** developers after every Git push.

DevOps, DUU

November 2020 – May 2024

President / Web App Engineer

Duke University

- Led **4 teams** of 15 developers in weekly sprints with **Duke OIT** to create 3 Duke websites and 2 web apps.
- Headed bi weekly SCRUM meetings to manage team deliverables and update Duke's administrative board on projects.
- Developed Duke@Nite Trivia App through **Firebase** and **React.js** allowing **1200+** students to play trivia at events.

Duke Computer Science

December 2021 – May 2024

Teaching Assistant

Duke University

- **Head TA** for 'Intro to **Computer Systems**' - CS210 & '**Databases - Everything Data**' - CS216 (220+ students).
- Led weekly teaching sections & held office hours to assist students with projects and reteach concepts covered in class.

Projects

Graphics System Software | C++, C, VS Code

November 2022 - April 2023

- Developed **2D graphics engine** with features like blending & advanced geometry equivalent to **Google's Skia**.
- Optimized efficiency by **130%** by using core computer science concepts: memory organization, compression, and debugging in timed 5 hour sessions by writing **7000+** lines of code.

Interior Shuffle | Swift, Python, VS Code

October 2023 - Present

- Co-founded & engineered an **AI powered iOS** interior design app to offer intelligent visualizations of room furniture shuffles based on user preferences.
- Employed **Open AI's API** & **Meta's Segment Anything Model** to output high quality generated images of interior.
- Won Duke **Generative AI Hackathon'23** with **2000+** users, **150+ 5** star ratings in **2** months.

Board Game IDE Java, IntelliJ

April 2022 - June 2022

- Led a SCRUM team of **8** developers to engineer an IDE (**27,000** lines of code) with game builder and player.
- Engineered interactive interface to create & play **any** possible 2D board game. **5,000+** downloads on Google Play.
- Trained **ML** model using supervised learning with **RLib** & **Scikit-learn** to beat human in any new game created.

Technical Skills

Languages: Python, Java, C, C++, JavaScript, R, MATLAB, SQL, Assembly(x86-64), LaTeX, HTML, CSS, Swift, RxJava
Technologies/Frameworks: GitHub, Pandas, NumPy, TensorFlow, REST APIs, Jenkins, Kafka, ReactJS, Docker
Activities: Pakistani Student Assoc President, Duke Debate, Duke Applied Machine Learning, Communications Coach