Zafar Khan

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Professional Experience

Wabtec Corporation, Software Engineer   *June 2022 - Present*
- Sole developer on a centralized license management tool for my team. Tool would generate license keys for deals that would cost $100,000+ along with providing supplemental features. Deployed to the cloud using AWS and Terraform. (C#/Python/CSHTML/MYSQL) (.NET6 Framework).
- Added language translator feature to web application for support in Spanish/French (Visual Basic - Angular).
- Built Pipelines in KubeFlow which were used to train a model developed for a dynamic ETA system that would accurately predict real time trip data/statistics. (Python - Pandas, NO-SQL - Cassandra)

Wabtec Corporation, Software Engineering Intern/Co-op   *May 2021- May 2022*
- Created a custom UI for engineers to simulate train runs (playback tool) and included functionality for accurate data to be read (C#, XAML)
- Automated certain setup processes optimizing the time needed for the tool and parsed log data to be seen in a useful format (C#)

The University of Iowa, Undergraduate Teaching Assistant   *January 2020 - May 2022*
- Guided students in gaining an understanding of the basics of coding (C++) within the C.O.E.
- Graded homeworks, held office hours, proctored exams, and aided a class of over 300 students learning to code

Christensen Lab, Research Assistant   *January 2020 - May 2022*
- Utilized Voxelmorph CNN, framework for unsupervised learning, to perform image segmentation on MRI's of lungs (Python)

Education

Penn State University   *Graduation: December 2024*
    Master of Science in Software Engineering   GPA: 3.8
The University of Iowa   *Graduation: May 2022*
    Bachelor of Science in Computer Science Engineering   GPA: 3.7 (Presidents List, Old Gold Scholar)

Activities/Projects

The University of Iowa SpaceX and Hyperloop Team, Software Lead   *September 2018 - May 2022*
- Worked in specific software group to develop and code certain aspects of hyperloop pod (C++)
- Attended workshops involving CAD (Autodesk Inventor/Creo)

Virtual Reality Prairie Application for Environmental Education   *December 2021 - May 2022*
- Developed a VR web application displaying a real prairie that would allow the user to interact with plants and other objects in order to learn about the environment (3.Js)

National Voting System Application (Hackathon)   *October 2020*
- Participated in a Hackathon where my team developed a full stack national voting system including a results page, ballot customizability and ability to vote, placed in top 5 of 25 teams (Java, SQL)

Skills

C++ • Java • Python • JavaScript (HTML, CSS) • C# • Azure • AWS (EC2, RDS, Lambda) • Kubernetes
Full Stack Development • Agile • Angular • Web App Development • Git • Terraform • SQL • React