Shahwar Saleem

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EDUCATION

UNIVERSITY OF WATERLOO
MEng in Computer Engineering
August 2018 | Waterloo, ON
Cum. GPA: 89%

UNIVERSITY OF ENGINEERING AND TECHNOLOGY
BE in Computer Engineering
August 2013 | Lahore, Pakistan
Cum. GPA: 85%

LINKS

Github:// **shahwar9**
LinkedIn:// **shahwarsaleem**

COURSEWORK

SOFTWARE ENGINEERING
Tools of Software Engineering
Algorithm Design and Analysis
Safety Critical Embedded Systems
Operating Systems
Computer Programming Languages
Data Structures
Computer Networks
Data Bases

DATA SCIENCE
Knowledge Modelling and Analysis
Tools of Intelligent Systems Design
Research Topics: Machine Learning
Text Analytics (NLP)
Deep Learning Specialization (Coursera)

INTERESTS

AREAS
• ML Platform • Data Platform
• Data Engineering • Data Management
• Feature Stores • ML in Prod

TOOLS
• Openshift • PySpark • Docker
• Kubernetes • Jenkins • Feast
• Git • JIRA • Slack

AWARDS

Graduate Research Studentship
International Master's Student Award
2009-2013 National Talent Scholarship

EXPERIENCE

ARCTIC WOLF | Software Engineer [ML Platform]
January 2022 - Present | Waterloo, ON

- In process of designing ML Platform for several use cases at Arctic Wolf. Proposed a set of requirements for ML Platform. Actively involved in design decisions in the beginning phase of ML Platform project.
- Developing POCs for tools evaluation as part of ML Platform development excercise.

BOREALIS AI | Software Engineer
July 2019 - January 2022 | Waterloo, ON

- Implemented ETL and reverse ETL like data access platform for later to be injected into Feature Stores. Data access process was simplified to just one API call and a few seconds to retrieve Spark DataFrame from a Parquet based optimized tables stored in S3 Storage. Prior to this, accessing data from RBC was a huge problem and took hours of time to run query on a Teradata source.
- Designed and Implemented robust Jenkins + Openshift based scalable CI/CD pipeline for pip packages. This pipeline automated the package delivery to users through artifactory within Borealis AI. Integrated a versioning strategy with pipeline to streamline release process. Release process was cut down to automated minutes from hours of human intervention.

PRONAVIGATOR.IO | Software Engineer
August 2018 - June 2019 | Kitchener, ON

- Designed/Implemented Neural Network based NLU Engine for Pronav. This design was proposed after analysing poor performance of SVM based NLU Engine of Pronav. New NLU Engine saved thousands of dollars of server costs per month and responded to requests 100x faster than the SVM based NLU Engine.
- Designed/Implemented an accuracy evaluation tool based on Confusion Matrix technique tailored to text classification needs of Pronav NLU Engine. This evaluation platform highlighted major issues with Data Cleaning process.
- Re-defined Data Cleaning processes in the light of above insights from accuracy evaluation tool. Documented the data cleaning process and mentored several Data Analysts to look at the data from NLU Engine perspective before labelling. This provided a sight into correlations between different kinds of user messages. An accuracy performance increase of 10 to 15% was evident because owing to more context driven confusion matrix data was labelled accordingly.

MENTOR GRAPHICS CORPORATION | Software Engineer
Oct 2013 - May 2016 | Lahore, Pakistan

- Improved visualization of processes on a multi-core architecture in RTOS by implementing a feature called Kernel Awareness. Kernel Awareness connected the core information of a process to pre-defined UI. Through this UI of Kernel Awareness, developers could clearly see state, memory utilization, affinity etc of each process which is critical in an RTOS.
- Experienced developing different device drivers for Nucleus RTOS. (I2C, SPI, LCD, CAN etc drivers for ARM & PPC Architectures)