Shahwar Saleem

256 Carlaw Pl, Waterloo ON N2J 3Y9

• Email: saleemshahwar@gmail.com • Tel: +1 (226) 220-7123

EDUCATION

Master of Engineering May-2016 - Aug-2018
University of Waterloo Waterloo, Canada
Concentration: Deep Learning, Data Science

- Percentage: 88.62

Bachelor of Science, Computer Engineering Sep-2009 - June-2013
University of Engineering and Technology Lahore, Pakistan

- GPA: 3.48/4.0
- Advisor: Dr. Atif Alvi (Cambridge University)
- Thesis: Load Balancing of Computationally Intensive Algorithms using Beowulf Cluster

EXPERIENCE

Machine Learning Engineer Aug-2018 - present
Pronavigator Technologies Waterloo, ON

- Working on Data pipelines and Deep learning algorithms to train insurance bots for insurance companies. Goal is to replace human insurance agents with conversational AI bots.

Graduate Research Student May-2016 - Apr-2018
Professor Krzysztof Czarnecki
WISE Lab, University of Waterloo Waterloo, ON

- Trained CNN architecture to detect camera occlusion on Autonomous Vehicle. Occlusion detection was reported to a ROS based architecture to warn system about non-friendly environment/situations for vehicle safety. The results were used in publication.
- Formulated a Run-time risk monitoring architecture for risk assessment in Machine Learning components of Autonomous Vehicle. Currently being employed in Autonomoose of WISE Lab as risk monitoring system.
- Partially worked on 3D - Object Detection on autonomous vehicle architecture. The name of the architecture was AVOD.
- Lead Autonmoose Integration team in CES'17. Successfully delivered ROS ported on ARM architecture based RDrive boards from Renesas.

Machine Learning Engineer September-2016 - Aug-2017
Stowk Inc. San Francisco Bay Area

- Design, experiment and maintenance of price prediction models based on RFs and NNs. Hands on experience with training neural networks for price prediction.
- Architecture design of React Native app for Stowk.
- Worked on GraphQL based API backend.

Software Engineer Oct-2013 - May-2016
Mentor Graphics Lahore, Pakistan

- Design and implementation of Kernel Awareness to visualize processes and core occupation level on a multi-core architecture. (SMP and AMP)

- Nucleus RTOS based Board Support Packages (BSPs). Developed Device drivers like I2C, LCD Display, SPI, Serial for Nucleus RTOS on ARM & PPC Architecture.
- Eclipse plug-ins, toolchain development and kernel issues.

PUBLICATIONS

Co-Author, *"An Automated Vehicle Safety Concept Based on Runtime Restriction of the Operational Design Domain"* , 2018 IEEE Intelligent Vehicles Symposium

SKILLS

Languages & Software: RASA, C, TensorFlow, Keras, NLTK, Python, JavaScript, React.js, GraphQL, Bash Scripting, Nucleus RTOS
Tools: SVN, Git, JIRA, Asana, Slack, Fisheye Crucible, Planio

GRADUATE PROJECTS

- Autonomous Car Platoon using Fuzzy Logic and Neural Networks
- Multiple-Producer Multiple-Consumer based Shortest Path Solving Server (Dijkstra's Algorithm and System Programming)
- Prediction of Yelp rating based on user text reviews (Natural Language Processing techniques like Stemming, Vectorization, N-Grams)

AWARDS

- Graduate Research Studentship - University of Waterloo - (2016 - 2018)
- International Master's Student Award - University of Waterloo - (2016 - 2018)
- National Talent Scholarship from Government of Pakistan (2009-2013)