Omar Irfan Khan

Guelph, Ontario, Canada omar-irfan@hotmail.com linkedin.com/in/omar-irfan-khan https://github.com/omarirfa

SUMMARY

Seeking software development engineering positions with masters in computer science from University of Guelph. Passionate about analyzing various problems and tackling them with innovative solutions.

SKILLS

Programming Languages: Python, C++, Java, Bash, SQL

Frameworks / Tools used: Tensorflow, Scikit-Learn, SimpleITK, OpenCV, Nibabel, Numpy, Keras, Pandas, Anaconda, Jupyter Notebook, Docker, Git, Matplotlib, Seaborn, Gnuplot, Matlab, Microsoft Azure

Languages: English, Urdu/Hindi and Arabic (Basic)

EDUCATION

Masters of Science in Computer Science (Image Processing Algorithms, Soft Computing, Advanced Soft Computing and Fundamentals of Computer Security)
University of Guelph • Guelph, ON • 2020 • 3.54/4.00

Bachelors of Science in Computer Engineering
American University of Ras Al Khaimah • United Arab Emirates • 2017 • 3.15/4.00

EXPERIENCE

Research Assistant - https://hdl.handle.net/10214/17779
University of Guelph **January 2018 - December 2019, Guelph, ON**

- Implemented a novel classification technique to automatically distinguish gliomas and normal brain images.
- Designed a hybrid method involving density based algorithms and thresholding.
- Attained an accuracy of 97% and minimal run time.

Teaching Assistant
University of Guelph **January 2018 - December 2019, Guelph, ON**

- Taught and assisted professors with courses such as: Discrete Structures in Computing I, Structure and Application of Microcomputers, Software Engineering and Database Systems.

Cyber Security Intern
Advanced Team Solutions LLC **June 2016 - September 2016, Ajman, United Arab Emirates**

- Organized and implemented several intrusion detection systems and commercial grade firewalls.
- Installed new IP telephony and tape storage systems on site.
- Built a program to recover lost data from storage devices which saved the company from losing a major customer.

PROJECTS

Classification of cyber attacks in intrusion detection systems
- Programmed various machine learning algorithms (random forest, K-Means, adaboost and feedforward neural network).
- Evaluated against conventional deep learning models.
- Determined deep learning models tend to outperform traditional machine learning algorithms by 20% in some cyber attacks.

Mobile spam filtering using a neural network
- Constructed a multilayer perceptron to filter out spam messages.
- Examined against other classifiers in terms of precision, recall and accuracy.
- Obtained above par results against traditional classifiers.

EXTRACURRICULAR ACTIVITIES

- Table tennis, Volunteering and Hiking.