

# Omar Irfan Khan

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## SUMMARY

Recent graduate with 2 years of experience in researching, designing, building and testing distributed systems. Now looking to utilize expertise understanding of all aspects of AI / software development to continue professional development.

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## SKILLS

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

**Frameworks / Tools used:** TensorFlow, Scikit-Learn, SimpleITK, OpenCV, Nibabel, Numpy, Keras, Pandas, Anaconda, Jupyter Notebook, Docker, Git, Matplotlib, Seaborn, Flask, Tableau, Matlab, PostgreSQL, Microsoft Azure, AWS EC2, AWS Elastic Beanstalk

**Language Skills:** English, Urdu/Hindi, Arabic (Basic)

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## 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 • Ras Al Khaimah, United Arab Emirates • 2013 • 3.15/4.00

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## EXPERIENCE

**Research Assistant**

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 80% of lost data from storage devices which saved the company from losing a major customers.

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## PROJECTS

**Emoto**

- Deployed an android diary application on play store which analyses user emotions and classifies them into happy, neutral or sad.
- Programmed models such as LSTM, BERT and VADER to centralize them on an AWS EC2 instance.
- Machine learning models such as BERT achieved an accuracy of 92% and LSTM achieved an accuracy of 90%.

**Fake Job Postings**

- Programmed various machine learning algorithms (Multinomial Naive-Bayes, RandomForest, Logistic Regression and Support Vector machine).
- Visualized how fraudulent job postings differ from real postings.
- Analyzed that linear regression and Multinomial Naive-Bayes outperformed other methods by 20%.

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## EXTRACURRICULAR ACTIVITIES

- Table tennis, Volunteering and Hiking.