# Omar Irfan Khan

Montreal, Quebec, Canada ✉ omar-irfan@hotmail.com 📱 12265004697 🔗 in/omar-irfan-khan 🌐 https://omarirfa.github.io

## SKILLS

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

**Frameworks / Tools used:** TensorFlow, Scikit-Learn, SimpleITK, OpenCV, Nibabel, Numpy, Keras, Pandas, Anaconda, Jupyter Notebook, Docker, Git, Matplotlib, Seaborn, Flask, NestJS, Tableau, Power BI, Matlab, PostgreSQL, Microsoft Azure, Google Cloud Platform, AWS EC2, AWS Elastic Beanstalk, AWS S3, AWS RDS, Gensim, SpaCy, NLTK, TextBlob, Hugging Face, Spark

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

## EXPERIENCE

### Machine Learning Developer
**Acrylic Robotics**　　　　　　　　　　　　　　　　　　　November 2021 - Present, Montreal, Québec
· Developing a uniform system to create a fingerprint file from the artist and which allows the robot to create a painting.

### Big Data Developer
**Fleethunt Technologies**　　　　　　　　　　　　　　　October 2021 - November 2021, Mississauga, ON
· Designed a streaming pipeline using pub/sub, dataflow, bigtable and apache beam to accommodate the data from IoT devices.
· Created a pipeline to transfer data from MySQL database to google cloud platform (GCP).
· Implemented an API based off happybase to connect with bigtable and query data based on columns and key.

### 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.

## EDUCATION

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

**Bachelors of Science in Computer Engineering**
American University of Ras Al Khaimah · Ras Al Khaimah, United Arab Emirates · 2017 · 3.15

## PROJECTS

### Emoto
· Deployed an android diary application on play store which analyzes 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%.

### Twitter trends
· Deployed a pipeline to set up streaming between various AWS services.
· Programmed spark for streaming and for analyzing the data.
· Designed a real time dashboard using flask which shows the current trending hashtags.