

Shehjad Khan

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EXPERIENCE

ACRYLIC ROBOTICS (NEXT36 & FRONT ROW VENTURES) | SOFTWARE ENGINEER - DEEP LEARNING May 2021 – Now | Montreal, QC

- Designing and implementing convolutional neural networks using TensorFlow and OpenCV for feature detection and extraction of relevant attributes from live video data and digital paintings from Photoshop/Illustrator.
- Scoping development of automated machine G-code generation with team of mechatronics and robotics engineers, aiming for prototype launch as part of Centech deep-tech accelerator in August.

KPMG LIGHTHOUSE | DATA ENGINEER INTERN - FULL STACK & MACHINE LEARNING TEAM Jan 2020 – Apr 2020 | Toronto, ON

- Architected React + Flask web app deployed through Docker with Mongo Atlas on GCP for data pipelining to provide key phrase, named entity, and sentiment analytics for over 6 million phone call records.
- Built financial news article topic modelling pipeline leveraging LDA unsupervised classification and feature extraction through sklearn, nltk and gensim to forecast risk and provide market insights, classifying over 92% of article topics correctly.

PROJECTS

ETH GLOBAL | HACKATHON ORGANIZER, INTERNATIONAL LOGISTICS

- Revamped React dashboard components and refactored API endpoints in Node.js for 6200+ applicants and 1200+ sponsor/judge registrations. Used Lambda + DynamoDB to create data pipeline for Cognito application processing system.

SENSE JAR | BACKEND ENGINEER, PERSONAL PROJECT

- Building Flask API for ML backend using spaCy NLP and TensorFlow for React app that identifies bias in news articles and generates similar articles from different viewpoints for politically-balanced news feeds.

COVIDBIT | COMPUTER VISION ENGINEER, HACK THE NORTH 2021 FINALIST

- Created real-time 'virus spread' Fitbit that tracks physical interactions at the micro-scale and then visualizes the frequency of encounters with location tracking using D3.js & Firebase. Implemented facial recognition algorithm with OpenCV/dlib + YOLOv3 that detects individuals in live video from a glasses-mounted Raspberry Pi camera.

TENSORFLOW LITE | OPEN SOURCE SOFTWARE CONTRIBUTOR, NLP EXAMPLES

- Built task examples for BERT QnA, BERT Text Classification, and Smart Reply using the TensorFlow Lite Task Library in Python for usage in Android (Java)/iOS (Swift) Apps, enabling on-device machine learning inference.

EDUCATION

UNIVERSITY OF WATERLOO

BS IN HONORS MATHEMATICS WITH COMPUTER SCIENCE OPTION

Dean's Honours List | Cumulative GPA: 3.9 / 4.0 | Expected April 2024

SKILLS

Languages

Python • JavaScript • Go • Java • Ruby • SQL

Full Stack

React • Node.js • Django • Flask • Rails • Postgres • MongoDB

ML & Data

TensorFlow • PyTorch • scikit-learn • Keras • Pandas • NumPy

Cloud & CI

AWS • GCP • Docker • Kubernetes • Git • CircleCI • Gradle

COURSEWORK

Algorithms & Data Structures

Machine Learning

Object Oriented Software Development

Functional Programming

Neural Networks & Deep Learning

Natural Language Processing