

# Shehjad Khan

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## SKILLS

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- **Languages:** Python, JavaScript, Go, Java, C/C++, Ruby, Swift, SQL
- **Full Stack:** React, Node.js, Django, Flask, Rails, Postgres, MongoDB, GraphQL
- **ML & Data:** TensorFlow, PyTorch, scikit-learn, Keras, JAX, Pandas, NumPy, OpenCV
- **Cloud & CI:** AWS, GCP, Docker, Kubernetes, Git, CircleCI, Gradle

## EXPERIENCE

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**Acrylic Robotics (NEXT36 + FRV)** — Software Engineer Intern (Deep Learning & CV Team) May 2021 — Now

- Creating robots that can draw incredible abstract paintings with neural style transfer.
- Developing automated pipeline for image modification & feature detection using generative adversarial networks and computer vision techniques implemented with Keras, TensorFlow, & OpenCV.
- Collaborating with mechatronics engineers to help with creating simulated environments for the robotic arm and training RL algorithms.

**KPMG Lighthouse** — Data Engineer Intern (Full-Stack & ML Team) Jan 2020 — Apr 2020

- Architected React + Node.js web app deployed through Docker on a Google Kubernetes Engine cluster with Mongo Atlas 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

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**ETH Global**  Hackathon Organizer

- Revamped React dashboard components and refactored API endpoints in Node.js for 7400+ applicants and sponsor/judge registrations. Used Lambda + DynamoDB to create data pipeline for Cognito processing system.

**Sense Jar** Backend/ML Engineer, Hack the North 2021 Finalist

- Built Flask API and ML backend using Google Cloud Natural Language API and TensorFlow for React app that identifies bias in news articles and recommends articles from different viewpoints for politically-balanced news feeds. Source code private pending launch with Parliament of Canada to fight propaganda!

**TensorFlow Lite**  Open Source 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

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**University of Waterloo** Bachelor of Mathematics with Computer Science Option April 2024

**Coursework:** Algorithms & Data Structures, Machine Learning, Object Oriented Programming

**Cumulative GPA:** 3.9/4.0 (92% Average), Dean's Honours List