



# KABIR MALKANI

## DEVELOPER & DATA SCIENTIST

An entrepreneur and passionate software developer, I love bringing ideas to life. My goal is to help architect the future of technology.

## CONTACT

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## EDUCATION

### BSc. Data Science and Mathematics

Western University, 2015 – 2020

## KEY SKILLS

### Data Engineering

Python Pandas, R Dplyr, SQL, MongoDB

### AI & Machine Learning

Python Keras, Matlab

### Backend Development

Python Flask/Django, NodeJS

### Team & Project Management

### Frontend Development

Javascript Vue/JQuery

### Financial Reporting

Excel VBA, GGY AXIS

### Cloud & DevOps

Google Cloud, GitHub, Docker

## ACCREDITATIONS

### Society of Actuaries Exams

Predictive Analytics

Statistics for Risk Modelling

Probability & Statistics

Financial Mathematics

Investment & Financial Markets

### Deeplearning.ai Specialization

Deep Learning

Structuring ML Projects

Convolutional Neural Networks

Sequence Models

## CAREER

### Curabit – Co-Founder \ \ CTO

2020-Present

- Built distributed AI chat service with integrated livechat, giving businesses the opportunity to effectively engage with their customers. (GCP, NodeJS-WebSocket)
- Created Curabit's NLP based contextual search algorithm and analytics suite, allowing businesses to deep dive into their customer conversations and reviews. (Python-Django/Flask, GCP, Docker, MongoDB)
- Leadership of 10-person organization using agile principles. Scrum master for development team, and management of marketing, finance, and sales initiatives. (GitHub, Monday.com)
- Architecture of systems and dataflows that maintain best security practices, including OAuth registrations and payment processing. (Stripe, Shopify)

### Sun Life – Actuarial Consultant

2020-Present

- Data standardization and analysis of requirements for various financial models, creating strong audit trails with best documentation practices. (Excel, Sharepoint)
- Simultaneously supporting multiple business units in building their actuarial models, required under new IFRS17 reporting standards. (GGY Axis)

### Sanofi Pasteur – Data Engineer

2018-2019

- Built an application that used graph theory to structure enterprise resource data, allowing users to identify vaccine compositions through a single search. (Python)
- Created a random forest classification algorithm to detect process instability in real time data, which in turn alerted process managers to potential production issues. (MatLab)
- Full stack development of process monitoring dashboard, used for visualizing production performance and reporting for the entire department. (Python-Django, Javascript)
- Developed an algorithm for image classification that counted bacterial cells within microscope images, and in turn measured batch quality. (Python)

## PROJECTS

### Crime Forecasting C-LSTM

Designed a Convolutional LSTM to predict crime in the city of Toronto. Used 5 years of crime type, location and environment data. Outputs mapped crime likelihoods in sequential 4 hour periods, sensitive to spatial and temporal inputs.

### Match-o-matic

As a fun Valentine's day experiment, I wrote an algorithm to match 60 people in the Western AI community. I used a vector embedding model (BERT) to match text responses on surveys, and an adapted solution to the 'stable marriage' problem.

## COMMUNITY

### Western AI – Co-Founder \ \ VP

2019-2020

Held lectures in which I taught 25-100 students introductory AI as well as more advanced machine learning topics. Organized club promotion events and connected sponsors, growing Western AI to 200 members by the end of the year

### Actuarial Science Undergraduate Association – Project Manager

2019-2020

Lead a team of 5 through building their first neural network, which we showcased at the Canadian Under Conference in AI. Additionally helped organize the conference as Western's delegate ambassador.