

# Sean Kurian

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## WORK EXPERIENCE

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### IBM

May 2019 – Aug. 2019

*Junior Developer*

*Toronto, ON*

- Wrote VMWare scripts to automate tasks such as sandbox creation and deployment.
  - Resulted in 100+ productivity hours saved (a single VM takes 2+ hours to manually create/deploy).
- Solved clustering and association problems with the use of KNN and Apriori algorithms to implement value-added solutions to HR tools.
- Ensured easy setup by creating Dockerfiles of important tools such as ansible, for seamless deployment.

### Tata Consultancy Services

June 2017 – Aug. 2017

*Software Engineering Intern*

*Chennai, Tamil Nadu*

- Assisted in creating a database consisting of information from 10000+ employees using MySQL.
- Integrated a tool to predict employee attrition with 95% confidence into ignio, an AI assistant.

## PROJECTS

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### Tweet Sentiment Analysis

May 2020 – Aug. 2020

*Built a model that accurately predicts (test acc: 80%) tweet sentiment*

- Created baseline model using a Naïve-Bayes classifier with a test accuracy of 73%.
- Increased test accuracy 5% using transfer learning by fine tuning ULMFiT.
- Increased test accuracy 2% by replacing the base RNN classifier with an LSTM using weight dropouts.

### Geographic Information System

Jan. 2019 – April 2019

*Worked in a team of three to build a large-scale GIS (akin to Google Maps) using OpenStreetMap*

- Implemented Dijkstra's algorithm to find ideal delivery paths within time constraints.
- Precalculated important map information such as street vectors and stored in appropriate structures, reducing on-the-fly calculation by up to 75%.
- Drew the resulting map, implemented functions for user interaction such as search, pan, zoom.

## EDUCATION

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### University of Toronto

April 2022

*BASc, Computer Engineering (minor: Artificial Intelligence Engineering)*

*Toronto, ON*

- Edward S. Roger Sr. Scholarship (Awarded to outstanding applicants)
- SKULE Dance, Intramural Soccer, Varsity League of Legends

**Courses:** Computer Science (Java), Computer Fundamentals (C Programming), Programming Fundamentals (C++), Data Structures and Algorithms, AI Fundamentals, Statistics, Linear Algebra, Calculus I/II/III

## SKILLS & INTERESTS

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- **Languages:** C/C++ (expert), Python (expert), Java (expert), Verilog (proficient), Assembly (proficient), Arduino (prior experience), HTML/CSS/JS (built personal website)
- **Technologies/Frameworks:** PyTorch, Docker, Android, Bootstrap, Node.js, AGILE methodology
- **Interests:** Soccer, Badminton, Running, League of Legends, Writing