# Matthew Immanuel Samson

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GitHub: https://github.com/MatthewSamson

### EXPERIENCE

• Retail Grocery Inventory Services (RGIS)  *Inventory Associate (Part Time)	Oshawa, Ontario Winter, 2020
Leons' Furniture Sales Associate - Appliances and Electronics (Part Time)	Whitby, Ontario Summer, 2019
University of Guelph  Graduate Teaching Assistant (Part Time)	Guelph, Ontario 2018 - 2019

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• University of Guelph Graduate Teaching Assistant (Part Time)	Guelph, Ontario 2018 - 2019
EDUCATION	
• University of Guelph  Master of Science in Computer Science (GPA: 3.94/4.0)	Guelph, ON Sept 2018 - Jan 2020
Panimalar Institute of Technology - Anna University Bachelor of Engineering in Computer Science (GPA: 8.35/10)	Chennai, India Aug 2014 - May 2018
• Spartan Matriculation Higher Secondary School  High School Certification (GPA: 9.25/10)	Chennai, India Sept 2000 - May 2014

### SKILLS

- Programming Languages: Python, Java, C, C++, Matlab, R, Assembly.
- ML Specialization: Supervised, Unsupervised, Semi-supervised Learning.
- AI Fields: Natural Language Processing, Computer Vision, Time Series, Big Data.
- Neural Network Libraries: PyTorch, Keras (backend Tensorflow).
- ML Libraries: Numpy, Pandas, Scikit-learn, NLTK, OpenCV, Statsmodels.
- Database Tools: RDBMS, MySQL, PostgreSQL, Hadoop (Map-reduce & HDFS), PySpark, Data Warehouse, MongoDB, ETL pipelines.
- Other Scripting Languages: HTML, CSS, XML, Django (python).
- Reporting and Visualization: Matplotlib (python), Tensorboard, Tableau, Latex, Microsoft Office.
- Coding Environments: Jupyter Notebooks, Pycharm, Eclipse, Android Studio, RStudio, IntelliJ.
- Working Environments: Linux (Terminal, Vim), Windows (Anaconda), GitHub, Raspbian.

# GRADUATE EXPERIENCE

#### Self-Organizing Maps on Driver patterns Graduate Thesis Studying behaviour of distracted drivers by extracting patterns from Self-Organizing Maps. 2019 Optimal search in Information Systems Graduate Project Building B Plus Trees and Static Hash Tables to optimize searching of growing databases. NLP model that generates characters Graduate Project A Long-Short Term Memory Recurrent Neural Network that learns to generate characters. 2019 Model to predict car quality Graduate Project A Shallow Feedforward Neural Network model that is trained to predict the quality of a car. 2018 Bayosian and Noural Notworks Craduata Project

Modifying a Bayesian Network to simulate Neural Network behaviour (a scientific p	aper). 2018
Undergraduate Experience	
• Navigation Guidance tool for the Visually Impaired  Tool that applies Spatial Mining and Image Processing to navigate and read boards.	Undergraduate Project 2018
• Human Resource Management System tool • Developing an architecture for HRMS and implementing it into an Android App.	Undergraduate Project 2017

## **PUBLICATIONS**

Vicarious Self-Adaptive Re: Sight for the Visually Impaired using Spatial Data Mining International Journal of Advance Research in Engineering, Science and Technology (IJAREST), March-2018

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Internships		
• Internship at Lumisence Implemented a prototype model that was	the basis for the publication in the IJAREST.	Chennai, India Winter, 2018
• Internship at Hewlett-Packard (H. Core Java development further being used	IP) d in Windows Applications.	Chennai, India Fall, 2017
• In plant training at Uniq Technol Android App Development, HTML and C	ogies CSS scripting, Photoshop and Dreamweaver tools	Chennai, India Summer, 2017

## Hobbies & Interests

- Sports: Soccer, Basketball, Table Tennis and Badminton.
- Reading: Biographies, History, Geography, Philosopy and Politics and Stories.
- Games: Board games, Mobile and Console gaming.