

Hi

I'm Sumanth and I am obsessed with how systems function and change over time.

I have two degrees in Engineering and my senior year thesis was an investigation into increasing the penetration of wind energy and other renewable sources into the main grid using tools of Machine Learning (Regression and Time Series) and Deep learning.

I finished graduate school at the University of Toronto where I studied Control system design at the department of Electrical and Computer Engineering. Most of my coursework was in Applied Math while main projects in Optimization and Robotics.

I've also worked in Risk Consulting (at KPMG) where I lead a small team during the second part of the IT audit of an insurance company for IBM. I also developed strategies for smaller tech companies in best software practices on behalf of clients such as Oracle and Microsoft.

I look at things from an originalist perspective and often this means looking at the various incentives that power a system to grow and become powerful. To this end, I worked with EWB Canada for whom my team proposed a fin-tech company to alleviate the problem of malnutrition in Haiti through financial planning and diet analysis. I was responsible for the operational business model and our proposal emerged as the best submission and being considered for further analysis.

Most recently, I worked for Liquid Analytics, an Amazon-like company for wine and spirits as a data engineer where I defined and owned the entire data pipeline to build a recommendation engine for their customers..

You can also take a look at my gitHub (<http://www.github.com/sumanth0892>) to see the way I code. I've been programming for the last decade and I like to work in Python, R, C++ and SQL, depending on the problem and the resources available.

I hope to be an Angel Investor or a Venture Capitalist and hope to have made a couple of investments in the next few years in the world of Software, Healthcare, Energy and Transportation. To this end, I always seek out my next opportunity to learn more about these things, meet new people and how they determine the future.

Hit me up @sumanthpv.venkateshmurthy@alum.utoronto.ca if you want to talk about this application or any my other interests, such as Science-fiction (Neal Stephenson, Daniel Suarez), Economic History (Niall Ferguson and Daron Acemoglu) and interesting podcasts!!

Best

Sumanth

# Sumanth Pareekshit Venkatesh Murthy

Budding Technologist

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## RELEVANT EXPERIENCE

**Teacher and Tutor, Toronto** - *Data science instructor and Tutor*  
December 2019 - Present

**Liquid Analytics, Toronto** - *Data Engineer*

July 2019 - September 2019

Completely defined Data pipelines (Using Python, Apache BEAM and GCP) for a product recommendation engine in wine and spirits in this three month internship. Became familiar with data engineering for a specific business problem.  
Studied product features for three different customers and created datasets for a recommendation engine.

**Research Assistant and Entrepreneur**

January 2016 - June 2019

Flow of action-potential in a squid axon and rebuilding signals in MATLAB and Simulink using Deep Learning techniques. Part of Biomedical and Neural Engineering.  
Image processing - Built an image Preprocessing system in **MATLAB and Python** using **Computer Vision techniques** to detect coral reef damage before they go into a Neural net. Finally, researched Multi-Input and Multi-Output Neural Nets to detect misinformation and classify news from such inputs as Image, Video and Audio.

**Triumph Gear Systems, North York** — *Project Associate*

January 2016 - June 2016

Worked as a Project Associate at Triumph Gear Systems, an Engineering and Manufacturing company to redesign production and shipping routes and increase savings in two parts for GE and Honeywell.  
Redrew routing diagrams and built an **analytics tool** to predict machine failure using sensor data.

**KPMG, India** - *Risk Consultant*

2014 - 2015

Worked as a Risk consultant in the Contract-Compliance department of KPMG.  
Led the second-part of the Metlife IT Audit independently and managed a team of about 15.

**VT University, India** - *Research Assistant*

2013 - 2014

Built **Machine Learning** models in **Python and MATLAB** rooted in Signal Processing techniques - Smoothing, LSTM and Regression to predict wind energy available a day ahead to aid in load-demand studies and increase penetration of renewable resources into the main grid. Extensive electro-mechanical modeling of a wind farm using Simulink to analyze mechanical changes and effects.

## EDUCATION

**University of Toronto, Canada** — *Master's Degree in Electrical and Computer Engineering*  
September 2015 - 2018

Control and Dynamical Systems in the Department of ECE.

Vice-President of ECE Graduate Students' Society.

Relevant Coursework - *Supervisory Control of Discrete Event Systems, Hybrid Systems and Control Applications, Digital Image Processing, Video Encoding, Neural Engineering.*

Supplementary Coursework:

**Robotics: Mobility** - University of Pennsylvania (Grade: 91%)

**Robotics: Aerial Robotics** - University of Pennsylvania (Grade: 91%)

**Robotics: Computational Motion Planning** - University of Pennsylvania (Grade: 99%)

**Python for Genomic Data Science** - John Hopkins University (Grade: 86%)

**Introduction to Genomic Technologies** - John Hopkins University (Grade: 90%)

## SKILLS

Scripting Languages:

**Python, C++, R, MATLAB, Solidity**

Libraries and packages

**Numpy, Scipy, Scikit-learn, Keras, Tensorflow, Simulink and openCV.**

Other: **HTML+CSS, Apache Beam SDK (for data pipelines), ROS Platform for Robotics, Ethereum Blockchain and SQL.**

## AWARDS

**Winner of EWB Canada business case study contest** - Proposed a finTech startup to alleviate poverty in Haiti.

**Global Fellow** - StartingBloc institute in 2016. DC Chapter

**Indo-Canadian delegate** : World Business Dialogue 2016

**ELITE and Robotics Certification.**

## LINKS:

Most of my projects and code is available on my Github:

<http://www.github.com/sumantho892>

LinkedIn:

<http://www.linkedin.com/in/sumantho892>

