# Rukmal M. Weerawarana

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### Education

Columbia University Online

New York, NY

Dec 2018

MicroMaster Certificate in Artificial Intelligence

Relevant Coursework: Machine Learning (*In* Progress, IP) and Artificial Intelligence (IP)

Stevens Institute of Technology (SIT)

Hoboken, NJ

May 2019

Master of Science (MS) in Financial Engineering Candidate (GPA: 3.8/4.0)

Relevant Coursework: Knowledge Engineering (4.0), Pricing and Hedging (4.0), Natural Language Processing (IP), Cognitive

Computing (IP), Stochastic Calculus (IP)

Awards: Provost Master's Fellowship

University of Washington (UW) Foster School of Business

Seattle, WA

Jun 2017

Bachelor of Arts in Business Administration (BABA) in Finance

**Certificates:** Quantitative Fundamentals of Computational Finance (GPA: 3.7/4.0)

# **Work Experience**

### Hanlon Financial Systems Laboratory (SIT Department of Financial Engineering)

Hoboken, NJ

Sep 2017 - Present

Graduate Laboratory Assistant

Assist the development of the Stevens High Frequency Trading Simulator (SHiFT), by containerizing individual modules and creating orchestration runtimes to emulate the structure of financial markets using Docker and Kubernetes.

#### UWashington Hyperloop Team (UW College of Engineering)

Seattle, WA

May 2016 - Aug 2017

Business Management Team Lead, Impact Development Team, Controls Team

Led the Business Management Team to develop and deploy a highly successful crowdfunding campaign to raise funds, and source materials to engineer and construct one of the first-ever functioning Hyperloop Pods.

Explored the transformative economic and social effect a hypothetical Hyperloop system could have on the Pacific Northwest.

Represented the University of Washington at the inaugural *SpaceX*, *Inc.* Hyperloop Pod Competition (<a href="http://spacex.com/hyperloop/">http://spacex.com/hyperloop/</a>) in Hawthorne, CA. Placed 4<sup>th</sup> in the United States and 6<sup>th</sup> Globally, against an initial 1,700 team proposals.

ZocialGPA, Inc. Seattle, WA Feb 2015 – Jan 2016

Software Engineering Team Lead, Software Engineering Intern

Coded efficient algorithms used to calculate ZocialGPA scores using data from large, non-relational databases, while minimizing resource utilization to reduce operating costs for the company.

WSO2, Inc. Sri Lanka Jun 2014 – Sep 2014

Software Engineering Intern

Member of the Apache Stratos team, an open source Platform-as-a-Service (PaaS) framework.

Mullins Molecular Retrovirology Laboratory (UW Department of Microbiology)

Seattle, WA

Apr 2014 - Aug 2014

Undergraduate Research Assistant

Developed applications to determine mutation patterns in the DNA sequences of HIV patients to assist with targeted retroviral drug therapies. Statistical analyses of large genome sequences were employed to calculate highly accurate expected ranges of mutations.

## **Projects**

### Lunar CubeSat (UW Advanced Propulsion Laboratory)

Seattle, WA

March 2015 - Jul 2015

Designed and presented Software Architecture for the communication and on-board processing systems for the UW Lunar CubeSat to NASA and Lab personnel. Expected launch into Lunar orbit aboard NASA's Space Launch System on the Orion Spacecraft in 2020.

### Skills and Interests

### **Technical Skills**

Programming and Scripting Languages: R, Python, Java, JavaScript, Go, Bash.

Tools: R Markdown, Jupyter Notebooks, LaTeX, Node.js, Amazon AWS, Google Cloud Platform, Theano, TensorFlow.

#### Research Interests

Computer Science and Applications: Cognitive Programming, Evolutionary Algorithms, Blockchain Applications.

 $\textbf{Physics:} \ Quantum \ Computers, \ Quantum \ Computation \ Education, \ Quantum \ Neural \ Networks, Optical \ Quantum \ Computing.$ 

 $\textbf{Other:}\ \textbf{Future Financial Stability, Scalable Market Structure, In-Vivo CRISPR Gene Editing, Quantitative Political Science, Bioethics.}$