Aditya Nagarajan

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Highlights: Strong programming skills in Python with 2+ years experience. Looking for a career where I can leverage my strong academic background and good interpersonal skills in the field of **Data Science**, **Business Intelligence and Software Engineering. GPA 3.9/4.0**

a. Education

Institution	Major	Degree	Year
University of Massachusetts, Amherst, MA, USA	Industrial Engineering and Operation Research	MS	January 2014-May 2016 (expected)
Madras Institute of Technology (MIT), Chennai, TN, India	Electronics and Communication Engineering	BS	August 2008- May 2012

b. Graduate level courses completed

Completed: Machine learning, Bayesian Statistics, Stochastic Processes, Linear Programming, Economic Decision Making, Systems Engineering, Operations Research in Health Care, Deterministic Models, Advanced Production Planning and Control, Deep Learning, Human Factors and Design in Engineering

Enrolled: Probabilistic Graphical Models

c. Work Experience

May 2014 – Present

Research Assistant, Electrical and Computer Engineering, University of Massachusetts, Amherst

- Design and Development of Software system for closed loop network of remote sensing instruments measuring atmospheric refractivity
- **Thesis**: Exploration into Machine Learning techniques for precipitation nowcasting

June 2012 – January 2014

Software Engineer, Thales Software, India

- A-Unit and System Testing of FMS (Flight Management Systems) for Airbus Aircraft A-400M.
- Key contributor to verification and validation of FMS as per the DO-178B.
- Developed tools using Python for automated testing to improve productivity.

d. Selected Projects

- **Game of LIFE model** A Discrete Time Markov Chain of the board game verified by simulation experiments
- **Health Care Operations Simulation** Poisson sampling for patient arrival and exponential discharge time simulation of hospital environment
- **Bayesian Computation** Gibbs sampling and Metropolis Hastings algorithm in R
- **Kaggle: Otto Group product classification challenge** Gradient Boosted Machine (GBM) classification of product type log loss = 0.51 (Bench mark = 1.5)
- **Carbon Capture and Storage (CCS) Technology; Evidence from GCAM** Evaluating the potential of CCS technology as a key source of renewable energy competing with other sources i.e. Solar, Nuclear
- **Board game Go** Deep Reinforcement Learning (RL) approach to solve the Go problem

e. Languages Tools and Technologies

Languages: Python, Ada, C++, SQL, JavaScript
Tools and Technologies: R, Matlab, Octave, AMPL (CPLEX); Apache Spark, git, Amazon EC2, S3