

## TIMOTHY ROZARIO

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### PROFILE

Highly motivated and result oriented data scientist with a passion for building scalable learning systems that address ambiguous and undefined real-world problems ■ Successfully led cross-functional teams in analyzing large data sets and uncovering key actionable insights, identifying trends and measuring performance ■ Frequent speaker at top conferences on data science

### EDUCATION

#### University of Texas at Dallas – Dallas, USA

**Doctor of Philosophy in Computer Science: GPA 3.86 / 4.0**

**2010 - 2015**

- Led 3-member team investigating novel techniques to optimize Radiation Therapy
- Published two high impact medical physics journal papers
- Presented at top international conferences

#### Anna University – Chennai, India

**Bachelor of Technology in Information Technology: GPA 3.80 / 4.0**

**2002 - 2006**

- Led 3-member team to 1<sup>st</sup> prize in the final semester project for creativity and originality using virtual reality – 1<sup>st</sup> among 300
- Captained table tennis and quiz teams to regionals – top 3% in 270 schools

### TECHNICAL SKILLS

**Machine Learning:** classification, regression, clustering, generative models like GANs

**Statistical Methods:** time series, regression models, hypothesis testing, principal component analysis and dimensionality reduction

**Software and Programming Languages:** Python – packages such as numpy, scipy, pandas, scikit-learn, keras, tensorflow, JAVA, C++, C, JAVA Script, Matlab, SQL, Linux, LaTeX

**Selected Coursework:** Data Structures, Algorithms, Probability and Statistics, Statistics for Data Science, Machine Learning and Deep Learning in Python

### RELEVANT WORK EXPERIENCE

#### Software Programmer: Siemens Automation Division Partner Frontal Software

**2007 - 2009**

- Successfully designed and implemented SMART FOUNDRY app for top 5 Asian foundry that reduced cost by 13%
- Led 3-member team designing and implementing Intelligent event reporting system for Global 500 pharma that increased productions by 15%

#### Post-Doctoral Fellow - Data Scientist: UT Southwestern Medical Center, Radiation Oncology

**2015 - Present**

- Designed and built production-ready deep learning model for tumor detection that halved the gold standard error margin
- Built and deployed clinical tool with deep learning that automates tumor-site organ detection accurately while saving 50% time
- Created and heading inter-institutional big data cleaning initiative using machine learning for improving clinical best practices

#### Research Intern: UT Southwestern Medical Center, Radiation Oncology

**Summer 2015**

- Successfully designed and built anomaly detection model that predicted irregularities in tumor trajectories using recurrent nets

#### Research Assistant: University of Texas at Dallas, Erik Jonsson School of Computer Science

**2010 - 2015**

- Designed and built novel marker-less tumor tracking models in lung cancer that reduced gold standard error from 3mm to 1.6mm
- Constructed and implemented algorithm for automatic collision detection for synchronized fleet of inflight drones
- President of Grads of Computer Science: Introduced industry pertinent courses; partnered with tech giants AT&T, Amazon to provide collaborative opportunities; organized summer boot camps for middle schoolers to provide a gateway to programming

#### Teaching Assistant: University of Texas at Dallas, Erik Jonsson School of Computer Science

**2011 - 2015**

- Taught and assisted data-structure, algorithm and programming courses. Received student evaluations in the 95<sup>th</sup> percentile

### SELECTED AWARDS AND RECOGNITION

**National Science Foundation NSF:** Received outstanding researcher scholarship in 2014 and 2015 – 15 recipients nationally

**Cancer Prevention Research Institute of Texas CPRIT:** Received travel scholarships and a grant for projects - 2015 to present

**BIOWEBSPIN: #1 Academic - Industry Partnering Network:** Award for high-impact customer centered product development

### PERSONAL

**Community** Compassion International – promotion and child sponsor; LIFT – Volunteer for design of study material

**Interests** Guitarist, Vocalist for Irish Rock Band; Song writer; Market Analyst and Manchester United fan