# Arun Abraham Thomas

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I am a staunch believer in an interdisciplinary approach to problem solving. I strongly relate to the *"Medici Effect"* which argues that innovation comes from diverse industries, cultures, and disciplines when they all intersect, bringing ideas from one field into another

## EDUCATION

**Carnegie Mellon University**                                                                                                 Pittsburgh, US
  Master of Science in Electrical and Computer Engineering                                              May 2017
  GPA: 3.6/4
  Relevant Coursework- Renewable Energy Systems, Machine Learning, Data Analytics, Cloud Computing

**Porto Business School**                                                                                                           Porto, Portugal
  Master of Business Administration                                                                                  May 2017
  GPA: 3.8/4
  Relevant Coursework- Business Analytics, Advanced Finance, Contract Management

**Maulana Azad National Institute of Technology**                                                              Bhopal, India
  Bachelor of Technology in Electrical Engineering                                                           May 2011
  GPA: 9.14/10

## OTHER SKILLS

Web Development (Flask/ Django)
Programming in JAVA, Python, C and R.

## PROJECTS

**Anomaly Detection Engine for Preventive Maintenance**                                                June 2019
- Developed a machine learning engine for conditioning monitoring of industrial machinery by analyzing a real life dataset of bearing vibration data
- Project is hosted at https://blog.arun-thomas.in

**Solar As A Service** (NTPC)                                                                                            NOCET 2018

- Proposed a Business Model for NTPC, India's largest Energy company to penetrate the Roof Top Solar (RTS) market targeting the Commercial & Industrial (C&I) Consumers who are at present burdened with high C&I Tariff.
- Developed a complete financial plan with a pricing strategy that protects NTPC's ROE while at the same time offering flexibility in service offerings.

**Computer Vision using Deep Convnets** (Carnegie Mellon University- Course: AI)                Spring 2017
- Trained an image classifier with an accuracy of 98.1% using keras, tensor flow and GPU instances on AWS EC2. Utilized data augmentation, batch normalization and hyper parameter tuning techniques.

**Short-term Energy Load Forecasting** (Carnegie Mellon University- Course: AI & Energy)           Fall 2016
- Built and compared models like regression and neural networks for forecasting load in Rwanda.
- Achieved a RMSE of 3.1% on day-ahead forecasts using a neural network based model.

**Predicting iPad sales on eBay** (MITx-Online Edx/Kaggle – Data Analytics)                        Summer 2015
- Built regression, CART, random forest prediction models to predict whether an iPad will be sold or not using past eBay sales data in R and ultimately selected the best model with an AUC of 0.8662.

**Business Proposal for MitoDIETS**  (MBA Project)                                                             Fall, 2016
- Developed a Business Plan for a startup R&D company, MitoDIETS (http://www.mitodiets.eu/) for commercialization of their technology. Conducted an evaluation of business opportunity, industry and competitor analysis, financial and risk analysis.
- Developed  a go to market strategy and a financial plan.
- Effectively used various management tools like Business Model Canvas, Porter's Analysis, NPV, IRR.

## HONORS & LEADERSHIP

**Dean's List**, Porto Business School                                                                            Sep 2015 - July 2016
**Gold Medal for Scholastic Achievement**, Maulana Azad National Institute of Technology         June 2007- May 2011