

Samarth Marudheri Chandrashekar

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EDUCATION

Master of Science in Engineering – Robotics

Johns Hopkins University, Whiting School of Engineering

Baltimore, MD

Graduating December 2020

- Machine Learning Teaching Assistant under Dr. Jin Seob Kim
- Courses: Machine Learning, Deep Learning, Artificial Intelligence, Advanced Data Science

Bachelor of Science in Engineering - Aerospace

Embry-Riddle Aeronautical University

Prescott, AZ

May 2015

- **GPA: 3.83/4.0** | Dean's List: 2012-2014 | Outstanding Graduate Award Nominee

PROFESSIONAL EXPERIENCE

Data Scientist

Insofe

Bangalore, India

May 2018 – August 2019

Drove research efforts at the smart systems research lab, oversaw Artificial Intelligence transformation and consulted with Fortune 500 companies to deliver cutting edge solutions.

- Increased task efficiency by 90% through an ensemble of entity extraction models, creating a structured database from an unstructured document repository. ML/DL Architectures: Bi-LSTM, CNN and Conditional Random Fields.
- Enhanced organizational AI capabilities through workshops at Expedia, IBM, United Airlines by developing and demonstrating case studies to extract value from text, image and structured data sources.

Research Associate

Throttle Aerospace

Bangalore, India

October 2017 – April 2018

Designed, manufactured and deployed UAV solutions. Explored computer vision techniques for object detection and tracking to develop prototypes for smart drones.

- Built an object detection prototype to detect cracks on runways using the YOLO algorithm through onboard computers with a potential to significantly reduce flight accidents and man hours for inspection.
- Achieved a 20 percent increase in drone performance and endurance through flight testing and flight data analysis, to detect and alleviate anomalies through fine tuning of parameters.

Application Engineer

EDS Technologies

Bangalore, India

November 2015 – September 2017

Led pre-sale activities to identify and position software (CATIA) to tackle aerospace and automotive industry challenges. Delivered customized corporate trainings to help upskill clients to meet project demands.

- Created case studies, presented to industry leaders and secured contracts from Bosch, Boeing and Honeywell.

PROJECTS

Swirlypy - Python Application Development

- Developed an open-source Python package for users to interactively learn and teach AI.
- Modularized application to interoperate seamlessly with Python libraries to enable easy content creation by instructors.

Generative Adversarial Networks for DeepFake Detection

- Trained an adversarial network (AutoGAN) to reconstruct an image based on input image (pair-wise generation).
- Achieved a 49% increase in DeepFake detection with reconstructed features over existing CNN architectures.

Trading strategy with Deep Reinforcement Learning

- Modeled an automated trading algorithm to predict stock prices yielding 14% ROI.
- Incorporated data from unstructured sources that captured major events affecting stocks of companies.

Pneumonia Detection from X-ray Images

- Achieved IoU of 50% for image segmentation by implementing the U-Net architecture in Pytorch.

SKILLS

- **Software:** Python (Scikit-Learn, Pandas, Numpy, Scipy, Spacy, Prodigy, OpenCV), MySQL, R (Shiny, flexdashboard), Matlab, Git
- **Data Visualization:** Matplotlib, ggplot, Plotly, Tableau
- **Deep Learning Frameworks:** Keras, PyTorch, Tensorflow
- **Professional Qualifications:** Data Management, Data and Decision Analysis, Business Intelligence, Product Development, Web Scraping, Data Mining
- **Certifications:** Deep Learning and Machine Learning Specialization (Coursera), PGP in Big Data Analytics and Optimization (Insofe, June 2018)