Gautham Thirunavakkarasu

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Experience driving strategic business decisions by developing machine learning solutions that solve complex problems using customer data. Award-winning MS in Mechanical Engineering and Certified Scrum Master with experience in delivering projects that meet speed, accuracy, and quality standards; fluent in Python and Machine Learning frameworks. Solid analytical skills for informing research/product roadmaps, plus a strong mathematical foundation. Published industry article in 2018.

Key Strengths:

Agile | Machine Learning Research | Exploratory Data Analysis | Statistics & Data Visualization | Computer Vision | Deep Learning

Technical Skills:

Python (TensorFlow, Scikit-Learn, Pandas, Numpy, scipy) | R Programming | AWS | Salesforce | Talend | Data Visualization (ggplot2, pyplot, Seaborn) | Engineering Simulation Tools (CATIA V5, ANSYS, IcePak) | MATLAB | git

Selected Professional Highlights

- **Spearheaded AI and Data Analytics in Public Sector assessment world** by implementing a semantic and object detection of public building plans with Mask R-CNN and TensorFlow; replaced a manual 2-3-month document assessment review process to a weekly valuation process, thereby increasing assessment accuracy from 70 % up to 82%.
- **Earned Outstanding Teamwork & Public Service Award in December 2019** at Publicis Sapient after building a new approach to commercial and business property valuation that increased assessment from 9.1% to as high as 14.7% in June 2020.; led data modeling and design efforts to create applications to automate trend factor calculations; developed python scripts to automate data cleaning thereby eliminating manual data collection and reporting efforts.
- **Increased quality management for high-end products up to 2-3%** at Amazon by implementing quality predictive algorithm to identify a fraudulent product line; incorporate external data metrics to augment user information and target inauthentic merchandise more effectively.

Professional Experience

Publicis Sapient| San Francisco, CA | Jan 2020- Present

ASSOCIATE TECHNOLOGY

Deployed a property assessment calculation framework with automated data cleaning and analysis pipelines; designed and implemented a predictive algorithm that increases property valuation accuracy up to 82%; used data science to evaluate appraisal approaches and propose data driven decision frameworks to improve calculation metrics in the property assessment office.

- Build predictive models to forecast assessment metrics across commercial and business assessment areas for a public sector projects; wrangle large datasets from government sources to inform valuation decisions to senior management.
- Develop property valuation system to make 237,000 assessments each year with an assessed value of more than $206 billion determined by mapping, inspecting and calculating assessed value for all commercial and business properties.

ASTA CRS Inc | San Mateo, CA | Jan 2019- Jan 2020

TECHNICAL CONSULTANT

- Led process improvement for public sector projects of assessment calculations by implementing multi-tier solution architecture based on data-driven decisions; collaborate with multi-competency teams of data engineers and analysts.
- Defined metrics and deployed dashboards and reports on Salesforce CRM platform for key functions like assessment metrics and employee performance management.

Earlier Roles Include: GRADUATE ASSISTANT, EMNSPC Lab; PRODUCT ANALYST, Amazon;

Education & Certification

Master of Science, Mechanical Engineering – University of Texas at Arlington, Arlington, TX (May 2018)

Bachelor of Science, Mechanical Engineering – Visvesvaraya Technological University, Bangalore, India (July 2015)

Certification – Certified Scrum Master, Scrum Alliance (January 2020) | TensorFlow Developer Certification (In Progress)

Publication – Thirunavakkarasu, G and et al, "*Air flow pattern and path flow simulation of airborne particulate contaminants in cold aisle containment high-density data center using air-side economization*"; DOI: 10.1115/IPACK2018-8436