Sankarasubramanian Swaminathan

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PROFILE

Master graduate with profound interest in Data Science. An ardent learner with proficiency in python and machine learning techniques. Keenly interested to work in developing innovative solutions and make valuable contributions to business decision making.

SKILLSET

Technical Skills		Soft Skills	Languages
o Data Analysis	o Python	o Team Collaboration	o German - Elementary
o Data Visualization	o R	o Communication	o English - Fluent
o Machine Learning	o SQL	o Problem Solving	o Tamil - Native
o Deep Learning	o Git	o Decision Making	o Hind - Elementary
o Azure HDInsight	o Docker	o Active Learning	

EDUCATION

M.Sc Distributed Systems Engineering — *Oct'14 - Sep'18*

Technische Universität Dresden, Dresden (Germany), **Grade: 2,0**

Relevant Coursework: Systems Engineering, Internet and Web Applications, Wireless Sensor Networks, Real-time systems

B.E. Electronics And Communications Engineering — *Aug'09 - May'13*

Anna University, Chennai (India), **Grade:7,26/10**

Relevant Coursework: Data Structures, Computer Architecture, Computer Networks, Embedded Systems

Publication: Formal Verification of Safeness, Liveness and Fairness of a Hardware Application using OpenCL on Graphic Processing Unit

EXPERIENCE

Master Thesis - Machine Learning Approaches In Production — *Apr'18 - Sep'18*

Fraunhofer Institute of Production Technology, Aachen (Germany), **Grade: 1,7**

Tools & Technologies: Python, NumPy, Pandas, Scikit-Learn, Matplotlib, Shap, XGBoost

- Applied machine learning techniques in two datasets representative of predictive maintenance
- Visualized and identified factors impacting prediction of machine operational state
- Implemented tree-based learning models and achieved 95% accuracy in machine failure prediction
- Identified optimal threshold using cost-benefit analysis for classifying machine failure

Internship In Devops & Collaboration Services *Nov'17 - Jan'18*

T-Systems Multimedia Solutions GmbH, Dresden (Germany)

Tools & Technologies: Docker, Icinga, MySQL, InfluxDB, Grafana

- Collaborated in implementation of a centralized monitoring system
- Implemented secure connections for network components and system interfaces
- Implemented dashboards for different service teams to monitor applications
- Participated in Scrum-sprints and documented in Jira and Confluence

Programmer Analyst Trainee - Quality Engineering & Assurance *Sep'13 - Sep'14*

Cognizant Technology Solutions, Chennai (India)

Tools & Technologies: SQL, HP Quicktest Professional

- Interacted with clients for requirement analysis and built test case scenarios
- Optimized SQL queries using complex joins to reduce data retrieval time
- Database administration of insurance contracts using Oracle database

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PROJECTS

Credit Card Fraud Detection - Identifying Fraudulent Transactions

- Analysed highly imbalanced dataset containing transactions of European credit cardholders
- Used Keras deep learning library to generate balanced data samples for model training
- Achieved an F1-score of 0.82 using keras sequential models

Detroit Blight Violation - Prediction Of Blight Fines Compliance

- Achieved 90% Accuracy in predicting fine compliance for maintenance violation by property owners
- Applied feature engineering techniques to handle categorical and missing values
- Implemented Gradient boosting decision tree model to identify compliance state of property owners

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CERTIFICATIONS

- Introduction to Data Science in Python - University of Michigan, Coursera
- Applied Machine Learning in Python - University of Michigan, Coursera
- Microsoft Azure HDInsight Big Data Analyst Certification - Microsoft, edX
- Introduction to Computer Science and Programming Using Python-Massachusetts Institute of Technology, edX
