

RAGHUNATH DIWAKARA

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EDUCATION

NEW YORK UNIVERSITY, New York NY

M.S., Computer Engineering, Anticipated Graduation May 2021- GPA 3.5

Relevant Coursework: Data Structures and Algorithms, Probability Theory, Computing Systems Architecture, OS, Machine learning, Internet Architecture, ML for Cybersecurity, Statistics for Data Science.

RNS INSTITUTE OF TECHNOLOGY (VTU), Bangalore, India

B.E., Electronics and Instrumentation, July 2017- GPA 3.93

TECHNICAL SKILLS

Programming Languages: C, C++, Java, JavaScript, Linux Shell, Python, R, SQL

Packages: Pandas, Numpy, Scipy, Matplotlib, Seaborn, Tidyverse, SimPy, Scikit-learn, Imbalanced-learn, Keras

Software & Tools: Elasticsearch DB, Git, REST APIs, JQuery, MQTT, HTML, LabVIEW, LaTeX, Matlab, Mathematica, Microsoft Office Tools – Word, Excel, PowerPoint, Development Boards - RaspberryPi, Arduino, Tiva

Development Environments: Eclipse, Jupyter Notebook, Code Composer Studio.

EXPERIENCE

TAVANT TECHNOLOGIES INC., New York, NY

AI Summer Intern, June 2020 – August 2020

- Explored telematics data and investigated the correlation between occurrences of different errors to design anomaly detectors.
- Built feature engineering pipelines to perform imputation and resampling of data with appropriate techniques.
- Built various ML classification models and evaluated the pipelines to judge for overfitting and generalization.

ROBERT BOSCH CENTRE FOR CYBER-PHYSICAL SYSTEMS, IISC, Bangalore, India

Project Assistant (Industrial Internet of Things), March 2018 - July 2019

- Developed and implemented network architecture and the architecture for sensor gateways.
- Designed algorithms in python to analyze real-time factory data and identify events and estimate machine parameters.
- Built simulation models of factory using SimPy in Python and identified bottlenecks and an optimal solution, resulting in up to a 62% reduction in total power consumption.
- Served as point of contact for industry partners.

ACCENTURE SOLUTIONS PRIVATE LIMITED, Bangalore, India

Associate Software Engineer, September 2017 – March 2018

- Performed requirement analysis and planning for software testing.
- Tested web applications by applying techniques of object-oriented programming.

PROJECTS

- Implemented cycle-accurate CPU simulator for MIPS ISA subset in C++.
- Implemented MODBUS stack on controller in C and built python based IoTgateway driver.
- Designed a High-Speed Data Acquisition system on LabVIEW.

PUBLICATION

"Digital Twin for Energy Optimization in an SMT-PCB Assembly Line," IEEE IoTaIS, Bali, with Neha Karanjkar, Ashish Joglekar, Sampad Mohanty, Venkatesh Prabhu, Raghunath D and Rajesh Sundaresan, Indonesia, 2018