

# SAI NIKHILESH KRISHNAMURTHY

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## PROFILE

Results-driven Data analytics professional with 3+ years of experience designing and implementing scalable and production code. Proven ability to simplify and solve complex problems, improve operational efficiency. Seeking to leverage my expertise to make a positive impact on your company's software engineering efforts.

## EDUCATION

### University of Wisconsin Madison

09 / 2022 – 05 / 2024

Master of Science in Electrical and Computer Engineering (ML track)

Courses: Introduction to Optimization, Machine Learning, Computer Vision, Matrix methods in ML

### Amrita University

08 / 2016 – 08 / 2020

Bachelor of Technology in Electrical and Electronics Engineering

## SKILLS AND INTERESTS

- Languages and frameworks: Python, R, C++, Go, MATLAB, JavaScript, SQL, React, Node.js, C#, Julia
- Infrastructure technologies: Kafka, DNS, TCP/IP, HTTP, Linux, AWS, Git, Azure, MySQL, SAS, SVN
- Skills: Cluster Analysis, Data Analytics, Predictive Modeling, Statistical Modeling, TensorFlow, A/B Testing, Forecasting, Statistics, Machine Learning, Data Science, Time series analysis, Kubernetes

## EXPERIENCE

### Tesla

Austin, TX

Intern

05 / 2023 – present

- Created **SCADA** reporting solution using shop floor data and revised the production process to effectively meet the target, mitigated the bottlenecks by adding offline workstation to implement workload balancing, decreased the downtime by 5%
- Created a dashboard using InfluxDB and **Grafana** to display live FX transactions readings and PLC tags data using OPCUA communication protocol.
- **Collaborated** with 4 technical and product teams to develop the Authorization and Authentication services that enabled secured access of data.
- Automated ETL process and performed **statistical analysis** of the metric, establish confidence intervals in different settings and developed scenarios and experiment to study the effects of the metric.
- Utilized statistical process control (**SPC**) to understand and solve assembly issues, performed root cause analysis (**RCA**) investigations that identified and eliminated production tooling failure modes.
- Collaborated with site engineering for design, factory layout, process flow, PFMEA, NPI team to focus on process improvement and equipment reliability.

### University of Wisconsin Madison

Madison, WI

Research Assistant

08 / 2022 – 05 / 2023

- Researched and designed an alternate prognosis AI model improving gene risk predictions by **21%** involving neural embeddings and recurrent neural network using Pytorch, R, Docker.
- Created **Statistical and ML models** to predict the TFs binding sites for glucocorticoid receptor using ChIP- Seq and ATAC-Seq data.
- Wrote python scripts to solve a **complex Linear optimization** problem with gurobi optimizer that reduces features in essential Minseq peaks by **29%**.

### Titan Company Ltd

Hosur, India

Senior Engineer

11 / 2020 – 06 / 2022

- Developed multiple software applications to perform tests on Apple iPhone back cases. Integrated the application with **BALI server** and deployed it on the Resistance testing machine with servos using IO mapping.
- Identified bottlenecks in the existing model, increased the part processing speed by **10%**
- Implemented multiple stacked Machine Learning (ML) models with hyperparameter tuning **and computer vision** (CV) to perform anomaly detection thereby increasing the accuracy by 8%.
- Created a Forecasting model using **time series model** such as ARIMA and applied exponential smoothing to predict the life expectancy of a Riveting cylinder.

## PROJECTS

- **Intel Image Classification Challenge** - Created an ensemble model with 89% precision for a multilabel classification challenge using U-Net architecture, EfficientNet-B9 and ResNet with dice loss.
- **Cross sell Hackathon** - Implemented multiple techniques and models such as ranking, blending, Regression, LGBM, XGBoost and CatBoost to predict the sales of the stores.
- **Genre Classification** - Developed models to classify book listings in Craigslist into different genres whilst using Image Processing with OCR to retrieve missing titles for listings.
- **Preventive Maintenance** - Spear-headed development of a Decision tree-based model for predictive maintenance and repairs of electric motor vehicles to minimize the loss incurred by inaccurate maintenance of it, saving \$xM of repairs costs.