Prabhasa Kalkur

prabhasa.94@gmail.com | College Station, TX
https://GitHub.com/prabhasak | https://www.linkedin.com/in/prabhasa-kalkur/ | https://prabhasak.GitHub.io/

F1-OPT Support Associate at SAP America, Inc. since Jun 2021. Previously SAP CoE Intern Mar-Jun 2021.

EDUCATION

Master of Science in Electrical Engineering, Texas A&M University (TAMU), USA. **GPA:** 3.9/4 **Dec 2020**
B.E. in Electronics and Communication, R.V. College of Engineering (RVCE), India. **GPA:** 9/10 **May 2016**

SKILLS

Languages & Tools: Python | SQL | C | C++ | REST APIs | Tableau | Git | NumPy | pandas | Matplotlib
SAP Tools: Integrated Business Planning (IBP) | Business Technology Platform (BTP) | Predictive Analytics Library
ML Frameworks & Libraries: PyTorch | scikit-learn | Keras | TensorFlow | Stable Baselines 2.0 | Tensorforce

EXPERIENCE

Support Associate at the Center of Expertise (CoE), Logistics Planning & Procurement **Jun 2021 - Present**
SAP America, Inc., Newtown Square, PA, USA

- Employed machine learning techniques on sales history data to enhance supply chain demand planning in SAP IBP.
- Performed parameter optimization using SAP Predictive Analytics Library (PAL), Business Technology Platform (BTP).
- Exposed to several SAP tools & modules through a rigorous new hire Bootcamp phase.

Intern, SAP America, Inc., Newtown Square, PA, USA **Mar 2021 - Jun 2021**

- Implement a Pattern Optimizer for Tyson Foods using GurobiPy APIs, which can detect rules-based production line patterns and dynamically recommend revenue-optimized production plans (SAP IBP for Response).
- Develop a machine learning model for plan generation using Deep Reinforcement Learning techniques (TensorFlow).

Graduate Researcher, Department of ECE, Texas A&M University [GitHub] **Oct 2019 - Oct 2020**
Thesis: "Learning from Demonstrations: Applications to Autonomous UAV Landing & Minecraft"

- Taught AI models to simulate real-world tasks using imitation learning on human demo data.
- Designed a novel method of autonomous UAV landing that captures a pilot's maneuvers at sea (Python).
- Attained high imitation accuracy with only 10 demos of drone navigation in AirSim, a physics-based environment.

Project Assistant, Code Design and Analysis Lab, Indian Institute of Science **Nov 2017 - Jul 2018**

- Optimized pickup & delivery of goods for Nokia's warehouses using GurobiPy APIs.
- Implemented classical metaheuristics to find the shortest path and reduced overall delivery time by 30% (Python).

Project Assistant, Signal Processing and Comms Lab, Indian Institute of Science **Jul 2016 - Oct 2017**

- Studied indoor localization of a device using k-Nearest Neighbor algorithm on power measurements of embedded nodes.
- Tracked a phone with 96% accuracy and low localization uncertainty in a large area with few nodes (MATLAB).

PROJECTS

Tracking COVID-19 Development in USA [**Tableau**]

- Visualized trend, concentration of COVID-19 cases, deaths in US states using Tableau's COVID-19 Data Hub.
- Showed rising trend, even with vaccines deployed, in states with highest number of cases: California and Texas.

MineRL Competition, NeurIPS 2020: Learning to Imitate Tasks in Minecraft [**GitHub**]

- Used Neural Networks to learn tasks in Minecraft by processing images from gameplay data (Python, PyTorch).
- Wrote an efficient data pipeline to process 60 million data points from MineRL, boosting performance by 80%.
- Applied imitation learning for teaching agents to perform tasks in Microsoft Malmo, outperforming RL methods.

Classification Algorithms for Supervised Learning on Popular Datasets, TAMU [**GitHub**]

- Implemented a Naive Bayes classifier with 86% accuracy on the noisy Iris dataset (Python, Keras, scikit-learn).
- Performed classification of the noisy MNIST dataset to compare performance of SVMs with Neural Networks.
- Utilized data augmentation to improve performance, with accuracies of up to 89% for SVMs and 87% for NNs.

COURSEWORK

Data Structures & Algorithms, Optimization Theory, Machine Learning, Reinforcement Learning, Linear Algebra.