

Prajwal Dondiganahalli Prakash

Gainesville, FL - 32608 | (352) 281 7630 | prajwalpy6@gmail.com | prajwaldp.github.io | linkedin.com/in/prajwal-d-prakash

Education

University of Florida

Gainesville, Florida

Master of Science in Computer Science, GPA: 4.0

AUG 2019 - MAY 2021

- Programming coursework: Analysis of Algorithms, Advanced Data Structures, Distributed Operating System Principles
- Mathematics coursework: Math for Intelligent Systems, Machine Learning

Work Experience

SAP Labs India Pvt. Ltd.

Bangalore, India

Associate DevOps Engineer, SAP Business ByDesign

JUL 2017 - JUL 2019

- Developed a real-time server availability monitoring dashboard to alert monitoring teams of server fluctuations in under a minute, reducing missed responses for service downtimes and improving the accuracy of downtime reports.
- Developed a capacity management dashboard to query and view servers and virtual machines in five SAP data-centers and their memory statistics as interactive visualizations, reducing time and effort for hardware planning and providing a consolidated report of hardware consumption.
- Developed a memory consumption prediction algorithm that utilized time-series auto-regression on about 200GB of weekly table size per client data of 2 years, to predict the consumption for the next quarter, resulting in a model with a squared error of 15% on validation.
- Leveraged knowledge in Full Stack Web Development: Flask, Vue.js, PostgreSQL, SAP HANA; Analytics: Pandas, D3.js; Machine Learning and Time-Series Modeling: NumPy, TensorFlow and Keras; and Scripting: Perl, Python, ABAP.

Projects

Software Fault Prediction using Artificial Neural Networks

DEC 2015 – APR 2016

- Developed an artificial neural network with Keras and TensorFlow for software fault prediction and trained it on the Camel 1.6 software bug dataset, resulting in a testing accuracy of 84.36% with an ROC AUC of 0.8 on cross-validation.

Human Resources Analytics

AUG 2017 – NOV 2017

- Performed cleaning, EDA, statistical modeling and machine learning on the HR data-set from Kaggle, building 3 models, of which the decision tree classifier predicted the employees that would leave with an accuracy of 96.8%.

Distributed Microblogging Website Engine

NOV 2019 - DEC 2019

- Developed a distributed engine for a twitter-like application using Phoenix/Elixir, with posts, hashtags, user-mentions, re-posts, and subscriptions, which on simulation with 1000 concurrent users, performed 500 tasks/second and delivered 200 notifications/second in real-time via websockets to a front-end client developed with Vue.js.

Simulation of Distributed Algorithms - Gossip, Push-Sum and Tapestry DHT

SEP 2019 – NOV 2019

- Developed the algorithms, routing and communication between processes (peers) on the Erlang VM, with the Gossip and Push-Sum algorithms reaching 100% convergence for 5000 nodes arranged in the 3D torus and honeycomb topologies, and the Tapestry DHT performing 100,000 lookups with a maximum of 6 hops in 20 minutes.

Analysis of Transcripts of TED Talks

AUG 2017 – NOV 2017

- Developed a text mining project to identify features using tf-idf, topics using LDA and named entities in TED talks and gathered insights, such as topic trends over time.

Design of Swarm Intelligence Methodologies Applying Machine Learning for Terrain Mapping

JAN 2017 – JUN 2017

- Worked as a member of a 3 person team that developed 3 robots that cooperatively generate the map of an unknown environment using the ORB-SLAM2 algorithm on data recorded from the cameras mounted on them.
- Developed the swarm dispersion algorithm on the ARGoS simulator and implemented it on the robots.
- Devised a reinforcement training algorithm to improve the robots' movement on uneven terrain.

Skills

Programming Languages: (proficient): Python, Java, JavaScript, (familiar): C++, C, Ruby, ABAP, Elixir

Machine Learning and Data Analysis: NumPy, SciPy, TensorFlow, Keras, Pandas, Matplotlib, scikit-learn, D3.js

Web Frameworks: Flask, Ruby on Rails, Phoenix, Vue.js, AngularJS

DBMS: PostgreSQL, SAP HANA, MySQL, MongoDB

Others: Linux, Unix, Docker, Git