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

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

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

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

DBMS: PostgreSQL, SAP HANA, MySQL, MongoDB