Pratyush Kar

pratyushkar.com · pkar@cs.utexas.edu · (+1) 512-496-5335 · pratyushkar

Objective

Actively seeking internship positions for Summer, 2018.

Education

The University of Texas at Austin, USA 2017 – Present
M.S. in Computer Science

Birla Institute of Technology & Science, Pilani, India 2013 – 2017
B.E. (Hons.) in Computer Science **CGPA: 9.4/10**

Work Experience

TEG Analytics, Bangalore, India Jan, 2017 – May, 2017
Software Developer Intern

- Migrated the Nike team's MS SQL Server setup to a Spark and HDFS based platform.
- Implemented the business logics using Spark SQL and columnar storage format (Parquet), resulting in ~10x faster query runtimes and ~70% storage savings.
- Converted the existing ETL pipeline to the new platform for generating client reports using Tableau dashboards.

Qualcomm India Pvt. Ltd., Hyderabad, India May, 2016 – July, 2016
Software Engineering Intern

- Developed a parser and command sequencer (in C++ and Python) for running commands present in the log files to simulate a voice call on the Hexagon DSP simulator.
- The system was designed to be dynamic and could handle changes to the ADSP command library seamlessly.

Academic Projects

Workload Characterisation in Cloud Data Centers Aug, 2016 – Dec, 2016
Advisor: Prof. Sundar B.

- Developed approaches based on user behavior modeling for the prediction of future workloads on the Google cluster dataset.
- Implemented models based on Support Vector Regression for prediction of future CPU and memory usage.

Autonomous Humanoid Robot: AcYut Oct, 2013 – May, 2016
Advisor: Prof. B.K. Rout

- Designed and built the 6^{th} iteration of India's first completely autonomous soccer-playing humanoid robot.
- Completed DeitY, Govt. of India, four year funded research project successfully.
- Implemented algorithms based on Monte Carlo Localization for efficient localization using field line detection.
- Participated and stood 6^{th} in RoboCup 2015 (only team from India) held in Hefei, China.

Content Based Image Retrieval for Shekhawati Paintings Jan, 2016 – May, 2016
Advisor: Prof. Sundar B.

- Implemented graph-based image segmentation algorithms for identifying important objects in the paintings.
- Designed image classification algorithms using HOG features and SVM for automatic annotation of the input images in OpenCV.

Skills

- Languages: C, C++, Python, Java, Scala, SQL, LaTeX
- Softwares: MATLAB, Tableau, Oracle SQL Developer, IBM SPSS Modeler, Git
- Libraries/Frameworks: Apache Spark, Hadoop, OpenCV, pandas, LibSVM, scikit-learn, QT