Krishnan Rajagopalan

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EDUCATION

UNIVERSITY OF WISCONSIN
MS IN COMPUTER SCIENCE
Expected: May 2019 | Madison, WI
Cum. GPA: 3.7 / 4.0

UNIVERSITY OF MUMBAI
BE IN INFORMATION TECHNOLOGY
Graduated: May 2017 | Mumbai, India
Cum. GPA: 8.06 / 10.0

COURSEWORK

GRADUATE
Advanced Machine Learning
Data Science
Optimization Methods
Mathematical Models of Machine Learning

UNDERGRADUATE
Data Structures and Algorithms
Database Management Systems
Object Oriented Programming
Advanced Internet Technology
Intelligent Systems
Image Processing and Computer Vision

ONLINE COURSES

NPTEL IIT-M
Introduction to Machine Learning
Artificial Intelligence

COURSERA
Development of Real Time Systems
Machine Learning

SKILLS

PROGRAMMING
Java • C • C++ • HTML5 • CSS3 • SQL
Python • Matlab • Julia • AJAX • Linux
JavaScript • Prolog • Shell

FRAMEWORKS
jQuery • NodeJS • MySQL • Keras • Git
Selenium • ASP.NET • MVC • PostgreSQL
Python SciKit • TensorFlow

AWARDS

2017 TECHXTER 6.0
Secured the first position from among 60 participating teams in this National Level technical paper presentation.

LINKS

Github: **https://github.com/Krishraj95**
LinkedIn:
https://www.linkedin.com/in/krishnan-rajagopalan-b34a8090

EXPERIENCE

MAGIC LEAP | EMBEDDED ALGORITHMS INTERN
June 2018 - August 2018 | Sunnyvale, California

- Worked in the Eye Tracking team of Embedded Algorithms to develop a software for the Augmented Reality ML headset that determines the fixation point of the user at any moment by collecting the user's eye details.
- The machine learning algorithm determines the gaze vector of the user's eyes and also the depth at which he/she is fixating. The software also helps to alleviate eye strain in users thus providing them with a seamless experience while wearing the headset for long durations.
- Improved the eye metrics by determining when a jitter has occurred in the headset. This is done by analyzing the current data for an anomaly. It involves finding threshold values that would be highly indicative of a jitter.

RESEARCH ASSISTANT | CHEM TUTOR: AN INTELLIGENT TUTORING SYSTEM
Jan 2018 - May 2018 | Madison, Wisconsin

- Collaborated with Prof. Martina Rau in developing a personalized tutoring system that provides immediate and customized feedback to learners, without requiring the intervention of a human teacher.
- The system uses an intelligent image recognition algorithm for recognizing the physical representations of concept models.

EMBEDDED TECHNOSOLUTIONS | SUMMER TRAINEE INTERN
June 2016 – July 2016 | Mumbai, India

- Designed an EDF scheduler on Raspberry Pi 2 Model B, that reduced CPU overload conditions by dynamically changing task instance deadline based on the current CPU utilization.
- The scheduling algorithm showed a 1% improvement over the standard EDF scheduler.

PROJECTS

WEB DOCUMENT CLUSTERING USING VARIANTS OF NNMF
Aug 2017 - Dec 2017 | Madison, Wisconsin
Developed an unsupervised machine learning algorithm 'Non-Negative Sparse Coding' with term frequency matrix for quick information retrieval from Web documents, achieving an accuracy of around 92% on the grouping of test data documents. The project was among the top 5 in a class of 100.

ENERGY-AWARE MULTIPROCESSOR REAL TIME SCHEDULER
Aug 2016 – April 2017 | Mumbai, India
Designed a Proof-of-Concept Operating System that implemented a real-time system scheduler using Dynamic Voltage and Frequency Scaling (DVFS) coupled with a special AI algorithm known as Simulated Annealing that reduced the amount of energy consumption by 2% over standard scheduling algorithms.

TWITTER SENTIMENT ANALYSIS USING BIG DATA ANALYTICS
Jan 2017 – April 2017 | Mumbai, India
Performed sentiment analysis using Hadoop framework by computing the Weighted Sentiment Value (WSV) of each tweet. The framework generated the WSV faster by using map-side joins in a distributed cache environment.

DIGITAL NOTICE BOARD SYSTEM WITH DISTRIBUTED SERVER ARCHITECTURE
Feb 2016 – April 2016 | Mumbai, India
Developed a digital notice board system that provides a customized interface for uploading campus-wide college notices, based on DNS-like protocol that significantly reduced network retrieval latency.

PUBLICATION

Karnad, Rishabh, Rajagopalan, Krishnan and Ladge, Leena (2017). Energy-aware Real-Time Scheduling for Multiprocessor System. Asian Journal of Convergence in Technology Vol 3 Issue III, Asian Society for Scientific Research, 2017.