Pramod Bukkapatna Sathyanarayana

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Summary

Passionate software engineer with a demonstrated experience and keen interest in Machine Learning and Distributed Systems. I also have a strong background in System Design, Data Analytics and Management, and Full Stack Development.

Technical Skills

Languages: Python, C, C++, C#, Java, JavaScript, SQL, R, Julia, Scala, Rust, Go, HTML
Technologies: Tensorflow, Spark, Hadoop, AWS, Azure, MongoDB, Django, NodeJS, Docker, Unity-3D, Android, Git
Interests: Machine Learning, Data Science, Full Stack Development, System Design, Distributed Systems

Experience

Samsung Research Institute Bangalore, Samsung Digital City **July 2019 - Aug 2021**
Senior Software Engineer *Bangalore, India; Suwon, South Korea*

- Doubled the concurrent load handling capacity of the 5G scheduler by optimizing scheduler software written in C and C++, and by redesigning the server architecture in order to balance CPU load evenly across time-slots and CPU cores.
- Enabled reference signal support in the 5G Scheduler by implementing the CSIRS, TRS features in C, automated Block Testing using test scripts and completed Unit Testing with GoogleTest framework, supported end to end feature testing.

Samsung Research Institute Bangalore **May 2018 - July 2018**
Intern *Bangalore, India*

- Developed a sign language recognition system based on hand gestures using Open-CV and Tensorflow to convert a live video feed into textual information using Convolutional Neural Networks and achieved over 80% accuracy on video feed

Applied Cognitive Science Lab: Indian Institute of Technology Mandi **May 2017 - July 2017**
Research Intern *Mandi, India*

- Designed VR, AR training simulations and the underlying Game AI using Unity-3D and C# to effectively model decision making in different circumstances, data logged from the simulations was used to determine the ideal medium for training
- Enabled broadcast of landslide-alerts to users based on their current location by developing an Android application

Education

University of Wisconsin - Madison **Aug 2021 - May 2023**
Master of Science in Computer Sciences *GPA: 4.0/4.0*

National Institute of Technology Karnataka - Surathkal, India **July 2015 - May 2019**
Bachelor of Technology in Computer Science and Engineering *GPA: 9.11/10.0*

Projects

Fall detection and fall recognition research project | *Scikit, Pandas, kNN, SVM, Python* **Dec 2021**

Persistent text editor using persistent data structures | *Non-Volatile Memory, PMDK, C++, C* **Dec 2021**

Blog web application with authentication and post sharing features | *Django, SQL, Python* **Mar 2021**

Credit card fraudulent transaction detection | *Scikit, Random Forest Classifier, Python* **Jan 2021**

Sentiment analysis of Amazon product reviews | *Scikit, NLP, BERT, Python* **Nov 2020**

Developed visualization tools to prove an open problem on graph coloring | *Visualization, Python* **Apr 2019**

Library management web application | *NodeJS, MongoDB, Express, React, Javascript* **Nov 2018**

Youtube video to audio converter web application hosted using AWS | *AWS, Flask, Python* **Jan 2018**

Implemented parallel K-Means clustering algorithm with CUDA | *CUDA, Parallel Computing, C* **Dec 2017**

Simplified TCP testbed TEACUP set-up using Docker containers | *Docker, TCP, Linux* **Nov 2017**

Relevant Coursework

- Distributed Systems
- Machine Learning
- Advanced ML Systems
- Data Mining
- Data Management
- Operating Systems
- Persistent Memory
- Linear Algebra

Publications

Rao, A. K., B. S., Pramod, Chandra, S., Dutt, V. Influence of indirect vision and virtual reality training under varying manned and unmanned interfaces in a complex search-and-shoot simulation: 9th AHFE International Conference 2018, Orlando, Florida, USA **July 2018**