Rithin Pullela

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Education

Texas A&M University, College Station, Texas (Department Academic Scholarship)   **Aug 2022 - May 2024**
*Master of Science in **Computer Science***   *CGPA: **3.9/4.0***
Courses: Operating Systems, Software Engineering, Machine Learning, Network Security

National Institute of Technology Warangal, India (Merit Academic Scholarship)   **Jul 2017 - Jun 2021**
Bachelor's in Electrical Engineering, Courses: Data Structures and Algorithms, DataBase Management   *CGPA: **8.25/10***

Technical Skills

Programming Languages:	C++, Java, Python, Go, C, C#, SQL, MySQL, HTML, CSS, JavaScript (JS), Ruby
Frameworks & Libraries:	Spring Boot, .NET, TensorFlow, PyTorch, Flask, Django, OpenMP, CUDA, MPI
Tools & Platforms:	Kubernetes, Docker, Kafka, Git, Maven, AWS, Redis, Linux, Oracle Cloud, Jenkins
Development Techniques:	Design Patterns, Object Oriented Programming, Cloud Development, Multi-Threading

Experience

Hewlett Packard Enterprise (HPE)   **May 2023 - Aug 2023**
Software Engineer — **AWS, Go, Python, Docker, Kubernetes, Pytest, Kafka, Redis**   *San Jose, US*

- Developed and tested code in a Cloud Native Environment at HPE Green Lake Cloud Platform, utilizing Go and Python. Gained hands-on experience with cloud technologies including AWS, Kafka, Redis, Kubernetes, and Docker.
- Enhanced test automation efficiency by leveraging Python fixtures for streamlined setup and teardown processes, resulting in a significant 70% reduction in testing time.
- Achieved a significant reduction in API response time from 700ms to 260ms by leveraging goroutines for concurrent execution, implementing Redis caching, and replacing the encoding/json library with the faster Jsoniter library.
- Enabled external event integration via Kafka's event-driven architecture for location updates and deletions.

Oracle Financial Services Software Limited   **Jul 2021 - Jun 2022**
Application Developer —**JAVA, Multi threading, SQL, GIT, Design Patterns, REST APIs**   *Bangalore, India*

- Contributed to the development of Cloud Native and On-Premise applications within an Agile environment, utilizing Java, Object-Oriented Programming (OOP), design patterns, Docker, Kubernetes, GIT, and JIRA.
- Pioneered a feature that identifies and discards bad rows over a specified threshold and stores them in SQL error tables, and securely stores them in user-specified databases. This resulted in 3 banking clients adopting the feature.
- Implemented Multi-Threading in the Balance Computation Engine team to improve the Performance by 20%.
- Took charge of the integration of a REST API, optimizing data retrieval and reducing reliance on shared databases, while progressing towards a Service-Oriented Architecture (SOA).

Projects

Bit Bid | Web Development, Django, Heroku, CI/CD, Docker   **Dec 2022**

- Led the agile development of BitBid auction platform developed in Django as a scrum master and a developer, featuring a seamless all-pay auction design and secure Bitcoin transactions(prototype) through integrated Coinbase API.
- Deployed on Heroku with CI/CD using GitHub Actions and Docker. Implemented a scalable architecture and asynchronous auction settlement using a cron job, ensuring optimal performance and user satisfaction.

Operating system | C++, Memory management, Multi-threading   **Dec 2022**

- Implemented dynamic memory allocation with page tables, translating physical addresses to virtual addresses.
- Employed FIFO and Round-Robin algorithms for multi-threading. Developed a sequential file system with features such as inode lists and free lists, ensuring organized storage and retrieval of files.

DocuMind(RAG) | Deep Learning, Vector Database, GPT3.5, tokenizers   **Feb 2023**

- Crafted an AI semantic search tool for document insights using ChatGPT and natural language queries.
- Built a dynamic language model pipeline with Weaviate Vector DB and OpenAI tokenizer for PDF content analysis.

Image captioning | Deep Learning, LSTM, Transfer Learning   **Jan 2021**

- Developed an Image Captioning model using the Flickr 8k dataset, employing Transfer Learning with the InceptionV3 model for object recognition and utilizing an LSTM for processing partial captions. Got a BLEU score of 0.73.

Parallelizing Strassen's Matrix-Multiplication Algorithm | C++, OpenMP   **May 2023**

- Enhanced the algorithm with OpenMP, achieving significant performance gains with modular memory management.