KARTHIK REDDY KOMMA

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SUMMARY OF QUALIFICATIONS

A passionate Software Developer with 3 years of industry experience. Proficient at Data Structures and Algorithms, TCP/IP, HTTP, Socket Programming, and Computer Networks to build scalable systems. Often recognized as a competent programmer, skilled at troubleshooting and coordinating across teams for fast-paced delivery.

EDUCATION

Master of Science in Computer Science, *University of Southern California* **AUG 2021-MAY 2023**
Bachelor of Engineering in Computer Science, *Visvesvaraya Technological University* **AUG 2014-JUN 2018**

RELEVANT COURSEWORK

Analysis of Algorithms, Database Systems, C, C++, Java, Data Structures, Operating Systems, Networks.

TECHNICAL SKILLS

Languages & Frameworks: C, C++, Python, Java, HTML5, CSS, JavaScript, React JS, Node JS, Express JS, Flask.
Databases: MySQL, SQL, MongoDB, Cassandra, Elasticsearch, Firebase.
Tools & Technologies: AWS, TCP/IP, HTTP, MVC, Azure DevOps, Docker, Kubernetes, Git, Visual Studio, JIRA, GDB.

EXPERIENCE

Software Development Engineer - II, Tally Solutions PVT LTD **JUL 2018-JUL 2021**

- Designed and implemented a reliable and scalable UDP communication library in C++, improving data transfer rate by 1.2x times than TCP.
- Built all **Concurrent Data Structures**, including Vector, Hash Table, LRU, List and queues from scratch.
- Led a team to design and develop Packetization & Accumulation module to transfer/receive data as multiple packets by utilizing concurrent channels; then proved to be **3x times** efficient.
- Initiated and developed **Event Dispatcher** for Asynchronous routing of requests and responses.
- Collaborated with 5 other teams across tiers and handled task management optimally using Azure DevOps; thus, reduced delivery time of routing library.

Application Engineer – Intern, Microsoft Innovation Lab DSCE **JUN 2017-AUG 2017**

- Headed a team to implement *Image CAPTCHA* in Java utilizing Model View Controller Architecture.

Software Engineer – Intern, ThyssenKrupp Aerospace PVT LTD **AUG 2016-NOV 2016**

- Launched an application in Java to analyze downtime of Schelling sawing machine with optimal approaches to scale efficiently for humongous data.

PROJECTS

Machine Learning approach for Interior Designing using Java

- Created an application to generate 3D scenes using jMoneky provided text as input. Leveraged StanfordNLP for Scene parsing and inference; further, proved for better accuracy than existing systems such as SceenSeer.
- Published research paper named “Kalpayita: A Machine Leaning Approach to Interior Design” at “International Journal for Scientific Research & Development - 2018”.

Real Estate Price Prediction using Dataset from Kaggle

- Implemented and deployed a House Price Prediction model on AWS utilizing Python, Pickle, Flask, and Nginx.
- Created front end to find out an estimated price by providing information such as area, number of bedrooms etc.

HONORS & AWARDS

- **Star of the Quarter** for leading development of Asynchronous Routing library.
- **Impact Group of the Release** award at Tally for exceptional teamwork to continuously deliver Quality Products.
- **Best Project Award** for *“A Machine Learning approach to interior designing”* among 50 teams at Project Exhibition of Dayananda Sagar College of Engineering, Bangalore.

LEADERSHIP & INVOLVEMENT

- Involved in delivering knowledge transfer sessions to onboard new & lateral hires quickly and effectively.
- Trained multiple batches of undergrad students at DSCE to enhance skills in C++, Data Structures, and Algorithms.