Samarth Sudarshan Kumar

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EDUCATION

University of Colorado - Boulder　　　　　　　　　　　　　　*August 2023 - May 2025*
Master of Science in Computer Science　　　　　　　　　　　　Boulder, U.S.A
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　GPA - N/A

PES University, Bangalore　　　　　　　　　　　　　　　　　*August 2017 - May 2021*
BTech in Computer Science and Engineering　　　　　　　　　Bengaluru, India
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COURSEWORK

Cloud Computing, Advanced Algorithms, Computer Networks, Operating Systems, Data Centre Scale Computing, Compiler Design, Database Management Systems, Machine Learning, Artificial Intelligence

INDUSTRY EXPERIENCE

Senior Software Engineer, Latlong.ai | Bengaluru, KA　　　　　　　*Jan 2022 - May 2023*
- Developed APIs in Golang and ported existing APIs in RoR to Golang, resulting in 50 times faster mean execution time, 20 times lesser mean memory usage and 30 times lesser mean CPU utilisation for a typical API.
- Increased average accuracy of the Geocoder API by implementing Uber's H3 indexing with Elasticsearch for area parsing and trie-based area identification with areas translated to Devanagari script to introduce fuzziness in area match, resulting in 2x better average accuracy compared to Google Maps API. News Article, Tweet, BlogPost
- Spearheaded the development of a JWT-based authentication-authorization service to authorise and authenticate access to APIs.
- Implemented a log stream using Kafka for asynchronous logging, better metric generation and efficient billing of APIs
- Coordinated with the DevOps team for the successful deployment of the entire API suite and the authentication engine. as micro-services on Elastic Bean Stalk by AWS. Experience Certificate

Senior Software Engineer, Samsung R&D Institute Bangalore | Bengaluru, KA　　　*July 2021 - Dec 2021*
- Developed HDR modules of ISOCELL camera sensors for Samsung's flagship devices. Experience Certificate
- Presented critical topics from the knowledge base for effective knowledge transfer within the CMOS image sensor team

Software Engineering Intern, Samsung R&D Institute Bangalore | Bengaluru, KA　　　*Feb 2021 - June 2021*
- Optimised (using NLP) the selection of test cases from a large corpus, consequently retaining high code coverage and reducing testing time by 50 percent. Experience Certificate

Research Intern, Center for Cloud Computing and Big Data | Bengaluru, KA　　　*May 2019 - Aug 2019*
- Steered the implementation of an IoT cloud platform by leveraging OpenStack and its components to build features like multi-cloud portability, scalability and security

PROJECTS

Event Detection in Social Media Streams | Research | PES University, Bangalore | Paper | *Aug 2020 - May 2021*
Identifying real-time events from tweets using a combination of word embeddings like word2vec and GloVe and clustering algorithms like KMeans, Hierarchical and Incremental clustering. Tweets were obtained from the Events2012 dataset.

RideShare Application | Course Project | PES University, Bangalore | Report | *Jan 2020 - May 2020*
Developed backend for cloud-based ride-sharing application. Created and managed workers using Docker and Zookeeper. Handled database consistency using RabbitMQ. Load balanced between micro-services and hosted on AWS EC2 instances.

TECHNICAL SKILLS

Programming Languages: Golang, Python, C, C++, SQL, Javascript.
Frameworks: Gin, fast HTTP, Flask, Django, FastApi, React.js, Node.js, gRPC, graphQL
Tools: Git, Docker, Kubernetes, Jenkins, Prometheus, Amazon Web Services, Heroku, Zookeeper, RabbitMQ, Kafka, Elasticsearch, Hadoop, Apache Spark, Hive
Database: Postgres, MongoDB, Redis