Sandhya Chandramohan

http://sandhyachandramohan.in
sandhya2392@gmail.com | 949.522.0190

EDUCATION

UNIVERSITY OF CALIFORNIA, IRVINE
Master of Computer Science
Graduated Dec 2019 | Irvine, CA
GPA: 3.70/4.00

INDIAN INSTITUTE OF TECHNOLOGY, MADRAS
Bachelor of Technology
Graduated July 2014 | Chennai, India
C.GPA: 8.07/10

AWARDS

UCI Capstone Project Awards 2019
3rd/50 teams | 2019
TigerConnect TigerHack 2019
2nd/10 teams | 2019
Blockchain India Week Hackathon
2nd/15 teams | 2017
Capital Float Tech-Olympics
1st/10 teams | 2016

LINKS

Github:// s4ndhyac
LinkedIn:// sandhyachandramohan
Twitter:// @s4ndhya

COURSEWORK

GRADUATE
Algorithms
Data Structures
Operating Systems
Computer Security
Applied Cryptography
Machine Learning and Data Mining
Neural Networks and Deep Learning

SKILLS

LANGUAGES
Over 5000 lines:
Python • Java • SQL
Over 1000 lines:
C++ • C • Ansible • Chef

OTHER TOOLS/ SERVICES
Extensive
Docker • Logstash • Elasticsearch •
Git • Redis • Kafka • MySQL
Comfortable
Django • React.js • Postgres
• Google Kubernetes Engine

EXPERIENCE

DEVOPS ENGINEERING INTERN | TigerConnect
June 2019 – Dec 2019 | Santa Monica, CA
- Enabled real-time SLO, SLI metrics by sending logs from the nginx load balancer via Logstash to Kafka Topics and ingesting them into data warehouses
- Reduced image cache size by 80% by enabling dynamic optimization of images on CDN's by creating an AWS Lambda @ Edge serverless function
- Formulated a migration plan and executed a zero downtime DNS migration

SENIOR MEMBER OF TECHNICAL STAFF | Capital Float
May 2017 – Aug 2018 | Mumbai, India
- Pioneered the Publish-Subscribe Messaging bus pattern to scale the system 10x
- Implemented Distributed Locking using Redis to handle 100% of all race conditions in a multi-user web application
- Reduced deployment downtime by 100% adopting Blue-Green deployment, setting up a Continuous Integration / Continuous Delivery process using Jenkins

MEMBER OF TECHNICAL STAFF | Capital Float
May 2016 – May 2017 | Mumbai, India
- Engineered a thread-safe concurrent application, synchronizing critical operations with Mutex objects to enable 100% real-time payments processing
- Created a suite of scripts enabling ETL for data transfers to a Datawarehouse
- Improved database performance by 30% and ensured 99.99% database availability by setting up MySQL Master-Slave Replication

SOFTWARE DEVELOPER | Capital Float
May 2015 – May 2016 | Mumbai, India
- Redesigned a Windows Desktop application in the Singleton pattern to a multi-tier RESTful Web Application in the MVC pattern
- Spearheaded the Unit of Work development pattern to carry out operations comprising a business process as one atomic transaction

PROJECTS

TRIPPLANNER | Real-time Collaborative Travel Planner
Sep 2019 – Dec 2019
- Architected, designed and setup a Microservices architecture using the Django framework, ReactJS and Postgres
- Built a highly scalable application using Docker container orchestration and deployed it on Google Kubernetes Engine
- Enabled real-time collaboration via WebSockets and Pub-Sub Messaging

BASICOS | Contributed to the Open Source Unix-like OS xv6
Jan 2019 – Mar 2019
- Implemented Unix system calls to get the memory stats, support multithreading, mutex locking, conditional variables, semaphores and linked list file-addressing
- Developed a unix shell with IO redirection, pipes and unix programs like ls, cp

RDBMS | Multi-layer DB with optimized index and query systems
Sept 2018 – Nov 2018
- Devised algorithms such as the Block Nested Loop Join, the Index Nested Loop Join and Sort Merge Join using the External sorting algorithm for sorting
- Built an Indexing Component via a B+ Tree supporting range predicates, managing persistent indexes over unordered data