

Achyuth Rao Sandhyavandanam

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A **Software Developer**, with **5+** years of experience in **Full-Stack Web Development** and a niche for designing and developing large scale, high-performance enterprise software

Technical Skills

Languages: Rust, Javascript, Typescript, C#, Python, C++
Frameworks: HTML, CSS, Javascript, Node, React
Databases: Amazon Redshift, MongoDB, MySQL, PostgreSQL
Developer Tools: Git, Docker, TravisCI, NeoVim
Miscellaneous: Redis, Apache kafka

Experience

Senior Software Engineer 2023 – Present

Aktivolabs Digital Health Pvt. Ltd.

- Migrating Legacy Node.js services to Rust for better performance and reliability
- Implemented background processor to asynchronously process scheduled jobs
- Implemented GraphQL endpoints for computing and retrieving Calorie data from Trackers

Software Development Engineer - 2 2019 – 2023

Optmyzr Technologies Pvt. Ltd.

- Developed a Caching Framework for the Amazon Ads Reports, gained a speed up of 70x
- Built tools on top of the Caching Framework for Reporting, Automations, Rule Engine and Optimizations for Customer's accounts for more than 250 Users
- Development of a Scoring System for Google Ads and Analytics Segments and a Reporting dashboard to monitor performance
- Wrote automation scripts to retrieve and store Accounts' performance reports for Data Analysis in Rust
- Wrote a web service in Rust to compute metrics for accounts

Software Design Engineer 2017 – 2018

Merkle Sokrati Pvt. Ltd.

- Developed and deployed a web application dashboard for Databases with features like OAuth and User Level access control list for handling data privacy - Virtually eliminating the reliance on the developers when any enterprise data is needed
- Developed features for an In-House Customer Relationship Management Software in AngularJs, NodeJs, PHP and MySQL
- Automation and integration of the CRM with Pipedrive, KookooDialer and various other third-party platforms - eliminated manual work and streamlined the process increasing the efficiency by 50% for the customer

Projects

Detection of DDoS in SDN | *Python, Numpy, Pandas, OpenFlow, Elasticsearch Logstash Kibanna*

- Led a team of 4 to implement various Machine Learning Algorithms in Python such as the SVM, Entropy-based Discretization and Fuzzy C-Means for DDoS detection in SDNs
- Achieved an accuracy of more than 90%
- Won the 2nd prize in the Open-Source category in a national level competition

Asynchronous Decentralized Cooperative Path-Planning | *Python, Matplotlib, Multithreading*

- Implemented the Interruptable Multi-agent Asynchronous Decentralized Space-Time cooperative algorithm for path-planning in Python
- Achieved a speed-up of 60% over the existing solution

Parallelising Support Vector Machine | *Python, Numpy, LibSVM, SKLearn*

- Designed and Implemented the Parallelized SVM by implementing the parallel interior-point method to optimize the training phase
- Achieved a speed up of up to 24% whilst keeping the memory footprint low

Education

Savitribai Phule Pune University
Bachelor of Engineering in Computers

Pune, India
2013 – 2017

Publications

An article in the Journal of The Institution of Engineers (India): Series B, Springer: Detection of DDoS Attacks in SDN using Support Vector Machine Entropy-Based Discretization and Fuzzy C-Means Clustering

Interests

Artificial Intelligence, Data Science, Algorithmic Analysis, Object Oriented Programming, Design Patterns, Web Technologies, Cryptography, Decentralized Platforms