

ARAVIND VASUDEVAN

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Experience

Google LLC

Software Engineer III

Mountain View, CA

November 2021 - Present

- Contributed branch redirection feature to codesearch that aided in removing master branches across all chromium projects.
- Upgraded all chromium plugins to Gerrit authentication and managed third-party host migration that improved security.
- Spearheaded setting up banned words restrictions within chromium hosts which protected sensitive information leaks.
- Implemented protocol substitution feature within depot_tools which allows secure communication with our git host.
- Converted the buildbucket plugin from js to typescript and lit.

GoDaddy Inc.

Software Development Engineer II

Kirkland, WA

March 2021 - November 2021

- Conceptualized a global control group feature which allows teams to access statistical impacts across a series of A/B tests.
- Integrated all our analytics services with monitoring tools to measure quality, availability, and performance of the product.
- Assembled a jenkins pipeline to test and auto-deploy projects using AWS CDK which is used by two new products.

Intern — Software Development Engineer

May 2020 - August 2020

- Reduced execution time of the analytics tool by two hours by redesigning it into multiple processes.
- Devised an AWS Batch based architecture to parallelize analysis in the analytics tool, which will further decrease runtime.
- Volunteered for the scrum master role to handle our project backlog on Jira, scrum meetings, and retrospective.

Zoho Corporation

Member Technical Staff

Chennai, India

June 2018 - May 2019

- Simplified transaction handling by implementing an annotation-based framework using Aspect-Oriented Programming.
- Built an HTTP connection pool library that can share pools between modules separated across multiple codebases.
- Modularized i18n keysets by developing a library to load and validate keys across multiple repositories without collision.
- Distributed configuration across runtime-dependent repositories by building a tool to manage and validate conf files.
- Fixed distributed lock handling mechanism in Zoho CRM, which removed race-conditions between database operations.

Project Trainee

December 2017 - March 2018

- Minimized dependency among teams by decoupling Zoho CRM into several compile-time independent components.
- Architected an observable-based inter-service communication framework that can resolve function calls at runtime.

Education

Carnegie Mellon University – School of Computer Science

Master of Software Engineering – Scalable Systems

Pittsburgh, PA

December 2020

Coursework: Distributed Systems, DevOps, Engineering Data Intensive Scalable Systems, Architecture for Software Systems, Introduction to Machine Learning, Analysis of Software Artifacts, Introduction to Computer Systems.

Teaching Assistantship: 17323/17623: Quality Assurance. October 2020 - December 2020.

Anna University

Bachelor of Engineering – Computer Science & Engineering

Chennai, India

May 2018

Academic Projects

Distributed Bitcoin Miner

CMU Fall 2020

- Modeled an application layer protocol on top of UDP with resilience, liveness, and packet sequencing.
- Developed the protocol to be connection-oriented and support the client-server model natively.
- Implemented a distributed bitcoin miner system on top of this protocol with fault-tolerance.
- Designed the miner to be the client and the server to load-balance mining jobs using SRTF scheduling and chunking.

Scalable Ecommerce Web Service

CMU Spring 2020

- Engineered a highly-scalable e-commerce app that can serve over a million requests/minute using EC2 and load balancer.
- Handled search functionality for around a million products using AWS RDS for storage and AWS ElastiCache for caching.
- Improved response time to under a second by devising a distributed in-memory caching framework.
- Synchronized the distributed cache using the check-on-use invalidation strategy and handled overflow using LRU eviction.

Skills

Programming Languages: Python, Java, Javascript, C, Bash, Go.

Backend & Database: Node.js, Struts, Spring, Flask, MySQL, MongoDB, Redis, RabbitMQ.

DevOps: Docker, Jenkins, Vagrant, AWS stack, Ansible, Kubernetes.

Frontend: Angular, JQuery, SCSS, HTML, CSS.