Aravind Vasudevan

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Education

Carnegie Mellon University *Pittsburgh, PA*
Master of Software Engineering – Scalable Systems *December 2020*
Anna University *Chennai, India*
Bachelor of Engineering – Computer Science *May 2018*

Coursework

Methods: Deciding What to Design, Models of Software Systems, Managing Software Development, Introduction to Machine Learning, Design and Analysis of Algorithms, Object Oriented Analysis & Design, Introduction to Computer Systems.

Experience

Zoho Corporation *Chennai, India*
Member Technical Staff *June 2018 - May 2019*
- Implemented an annotation-based transaction handling framework using Aspect-Oriented Programming.
- Designed internal HTTP connection pool library to work with multiple services simultaneously.
- Developed a library that loads multiple i18n keysets without collision in a project split across multiple repositories.
- Built a tool to manage configuration validation and building across multiple codebases.

Zoho Corporation *Chennai, India*
Project Trainee *December 2017 - March 2018*
- Architectured an inter-service communication framework using observable pattern which can trigger distributed functions.
- Decoupled features in CRM into multiple repositories and designed them to work together as libraries.
- Rewrote several class to accommodate to support migration to our custom architecture.

Tata Consultancy Services *Chennai, India*
Project Intern *June 2017 - July 2017*
- Prototyped a chatbot to simply data lookup in Planatics, an internal financial data management tool, using RASA NLU.
- Learned to build microservices and REST API endpoints for service interaction.

Personal Projects

Yabber *MEAN Stack*
- Concurrent group chat application using MEAN Stack and Redis.
- Software Engineering practices such as Use Case modeling, interface designing, and data modeling were followed.
- Software Requirement Specification, and Design and Data Modeling documentation were made before developement.
- Schema was realized using modified ER diagram for Mongo DB and Redis.

Lendr *Spring Framework*
- Hybrid mobile application using ionic that facilitates lending-borrowing of everyday commodities within a location.
- The backend of the application was built using Spring framework and MySQL.

Clip-Sync *Flask framework*
- Clip-Sync allows sharing a system's clip board within a network. Useful when working on documents as a group.
- The server component was built using Flask and the real-time clipboard sharing is handled using Flask-SocketIO.
- The clipboard of the system is shared via HTTP.

2048 AI *Expectimax Algorithm*
- AI solver for the game 2048 that plays the game using heuristic expectimax tree search algorithm.
- The 2048 game interface is implemented using Angular 6 and SCSS.

Defect Predictor *Machine Learning*
- A ML tool that predicts the numbers of bugs a project might occur in a project based on the team's previous experience.
- The data was tested with various regression models and finalized adaboost regressor based on test and validation error.
- Grid Search was used to tune the hyperparameters for the models.

Skills

Web Development Node.js, Angular, Struts, Spring, JQuery, SCSS, Handlebars, PHP, Docker, HTML, CSS, Javascript.
Database MySQL, MongoDB, Redis.
Programming Languages Java, Python, C, C++, Shell Scripting, R.