Yuvaraj Thiagarajan

Full Stack Software Engineer with a passion for building developer friendly APIs and user friendly UIs that solve challenging engineering problems

(650) 931-5371

yuvaraj.name@gmail.com

http://yuvaraj.name

EXPERIENCE

Sumo Logic, Inc. (Formerly FactorChain, Inc.) Redwood City, CA - *Senior Software Engineer*
MARCH 2017 - JULY 2018

Designed and developed new features and functionalities for improved usability and performance of the webapp used for Security Investigations.

REST API enhancements for improved performance: Implemented support for batching multiple similar API requests into a single REST HTTP request and REST API Expansion to combine the responses of multiple API endpoints into a single endpoint to avoid the number of HTTP requests for the resource requested.

Unified APIs and UI: Worked on unifying FactorChain's Security Investigation webapp with the Sumo Logic webapp after acquisition of FactorChain by Sumo Logic, Inc. This involved migrating the Python and Django powered REST APIs, React/Redux powered UI to share the application state with Angular app and rewriting the whole UI test suite using Jest and Enzyme.

Tech: JavaScript ES6, Python, React, Redux, Django, Webpack, NPM, REST, HTML, CSS, Jest, Enzyme

IAC Search and Media, Inc., Oakland, CA - *Node.js Developer*
DECEMBER 2014 - JANUARY 2017

Responsible for the design and development of new web applications, REST microservices and enhancing existing apps for various website properties of IAC Search & Media, Inc.

Design and development of Price History Trends for shopping products

Designed and developed Node.js based JavaScript app that performs the following:

1) Efficiently retrieve products info from the PriceGrabber feed and the price history info for the retrieved products from the REST web service using Async.js library.

2) Perform a series of mathematical calculations on the numbers obtained from the web services using Lodash and present the results through a price trend graph.

SUMMARY

13 years of professional full stack development experience

Experience in building high throughput scalable REST and GraphQL microservices

Experience in building user friendly single page applications

Experience in data modeling for both SQL and NoSQL databases

SKILLS

Programming Languages: JavaScript, Python, PHP, Go

Web Technologies: HTML, CSS, Node.js, Express, React, Redux, Apollo, Graphcool, Prisma, Jest, D3, JQuery, Bootstrap, Webpack, Lodash, Django

Software Architectures: REST, GraphQL, MVC, SPA

Databases: MongoDB, PostgreSQL, Redis, SQLite

Web Servers: Nginx, Node.js, Gunicorn, Apache

Platform: GNU/Linux, AWS, Docker, Kubernetes

Design and development of Sticky Notes

Developed a server-less note-taking JavaScript application in React that helps users to create, edit, and display notes stored in Amazon DynamoDB. React, Draft.js, Redux, Webpack, Jest along with Less, Lodash, HTML5 and CSS3 are used in the frontend and Amazon Web Services including API Gateway for REST endpoints and DynamoDB for storage were used in the backend.

Tech: HTML5, CSS3, ECMAScript 2015, React, Redux, Webpack, MongoDB

CDK Global, Inc, Pleasanton, CA - *Software Engineer III*
AUGUST 2013 - DECEMBER 2014

Responsible for designing and implementing features for Ad server.

Design and development of Ad Network Channel Service

Designed and developed a REST API to encapsulate the differences among multiple Ad Network Platforms so that the in-house ad server apps can communicate with a consistent REST web service.

Design and development of Ad Impression Cost Logging

Designed and developed a feature for the in-house ad server to obtain and log the aggregated cost for ad impressions from different ad networks to the ad server logs and database.

Tech: PHP, PostgreSQL, Zend Framework

R Systems, Inc, Mountain View, CA - *Senior PHP Engineer*
APRIL 2013 - AUGUST 2013

Responsible for designing and implementing scalable and extensible REST API to manage the configuration of portable cloud storage devices through smartphones and other mobile devices.

Tech: PHP, Zend Framework, SQLite, Shell Scripts, Apache, Lighttpd, Linux.

Shutterfly, Inc, Redwood City, CA - *Senior Web Engineer*
NOVEMBER 2012 - APRIL 2013

Designed and developed a feature for enabling users to navigate through the different surfaces of flat and folded greeting cards, and presenting the users with the different views of surfaces depending on whether the user is in Edit or Preview mode.

Tech: Java, Spring, JSP, HTML, CSS, JavaScript, Backbone, SASS/Compass

Webroot, Inc., San Mateo, CA - *Web Applications Developer, SaaS*
JANUARY 2010 - SEPTEMBER 2012

Responsible for building and maintaining high-performance, scalable web service APIs and web portal applications for Mobile Security and Email Security.

EDUCATION

Master of Science in Computer and Information Sciences with a major in Information Systems at University of South Alabama (2005)

Bachelor of Engineering in Computer Science at University of Madras (2002)

PERSONAL PROJECTS

Portfolio Website: Developed the portfolio website containing the resume, projects and my blog using Python, Django and Bootstrap. The website can be accessed at http://yuvaraj.name

Slack Rover - Serverless Note taking app in Slack: I implemented a serverless note taking app within Slack to help users save and fetch useful notes from Slack channels on demand as part of a two day hackathon project in my previous employment. The data is stored in the Amazon DynamoDB, the REST API endpoints implemented in API Gateway, the logic of the app is implemented as AWS Lambda functions and access control was implemented through AWS IAM roles. The demo of the application is available at https://www.youtube.com/watch?v=H4Gf7nsiPlY

Design and development of high-performance and scalable REST APIs

Designed and developed the back-end architecture for REST based JSON web service APIs to be consumed by Android/iOS mobile devices. Implemented a custom ORM solution for object-oriented database abstraction with integrated memcache support optimized for read performance to accommodate huge and growing number of concurrent connections.

Tech: PHP, Zend Framework, MySQL, Memcache, Gearman, Apache HTTP, Nginx, Linux

Design/development of Single Page Application for Mobile Device Management

Involved in the design and development of Web Portal for Mobile Security and Mobile Device Management. The web application was designed to be a Single Page Application (SPA) using JSON for AJAX style communication and followed the architectural patterns of MVC and REST.

Tech: HTML, CSS, JavaScript, JQuery, PHP, Zend Framework, MySQL, Apache

Array Networks, Inc., Milpitas, CA - *Software Engineer*

MARCH 2006 - AUGUST 2009

Responsible for building web based user interfaces for the management and administration of SSL VPN network appliance and also responsible for User Experience and User Interface Design.

Design and development of a JavaScript library

Implemented an object-oriented JavaScript library to enable external client-side scripts to achieve asynchronous communication with the server in JSON messaging format for handling database operations and implemented a dynamic data grid that makes use of this JavaScript library for handling database operations asynchronously without page reloads using AJAX.

Technologies: XHTML, CSS, JavaScript, JSON, YUI

Implementation of Dashboard with live graphs

Designed and developed an administration dashboard with embedded real time graphs that dynamically update every minute without page reloads to show the current status of the users logged on to the system and the current memory and resource consumption in the system.

Technologies: XHTML, CSS, JavaScript, PHP, RRDTool

CodecX Technology, Inc., Milpitas, CA - *Software Engineer*

JUNE 2005 - JANUARY 2006

Built and maintained embedded web apps in network appliances.

Tech: PHP, XML, HTML, CSS and JavaScript.

Tasks: Built a more efficient Trello like clone that optimizes network bandwidth and increases performance by reducing the number of HTTP requests by the use of GraphQL in lieu of REST for the web service APIs. Multiple users can collaborate with the support for conflict handling during concurrent editing. The app is a full stack JavaScript web application created using Graphcool, Apollo, Express, Prisma and React.

Distributed Dictionary: Built a distributed dictionary application to demonstrate the power of Go's concurrency model.

Serverless Microservice: Built a serverless AWS microservice to record and retrieve the number of website visits using Python, API Gateway, Lambda, DynamoDB and IAM.