Jacob Gao

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Summary

- *A professional with 2.5 years of experience in Analysis, Design, Development, Testing and Implementation of Web Applications in Client/Server environment using HTML, CSS, JavaScript, Bootstrap, jQuery, TypeScript, JSON, Angular JS, Angular 6, React, Node.js, Core JAVA/J2EE Technologies, Spring Framework, Rest & Soap web services.*
- *Expertise with AWS services including Elastic Compute Cloud (EC2), Elastic Container Service (ECS), Simple Storage Service (S3), Route 53, CloudFront, etc.*
- *Extensively used Angular features like Directives, Filters, Two-way Data Binding, Services, Templates, Pipes, Components, Routing for building Single-Page-Applications.*
- *Solid understanding of declarative routing using React router, and state management using Redux, along with middleware that extends Redux.*
- *Experience in using NgRx for reactive state management for Angular applications*
- *Profound knowledge in Bootstrap concepts like Forms, Pagination, Navbar, Modal, etc.*
- *Experienced in latest features in React such as Suspense, Fragments, and React Hooks.*
- *Expertise working with CSS box model, positioning, background, pseudo-class, pseudo Elements, layouts, texts, tables, lists and links, align, dimension, float, borders, margin and padding.*
- *Experienced in developing effective web applications using J2EE Frameworks like MVC architecture and Spring frameworks.*
- *Well versed in Node.js and related modules such as Express, Async, and Socket.io.*
- *Experienced in JavaScript Templating Engines such as Handlebars and Mustache.*
- *Decent working knowledge in development and usage of Restful Web Services.*
- *Working knowledge of SQL and NoSQL.*
- *Worked on testing/debugging tools like Jasmine, Karma, Protractor, JUnit, Spring Test, and Postman.*
- *Expertise with Agile and Waterfall developmental processes.*
- *Experience in using GIT for version control.*
- *Exposure to continuous integration and continuous deployment using Jenkins.*
- *Have excellent communication, interpersonal, and presentation skills with attention to detail and open to new technologies.*

Technical Skills

Languages: Core Java, J2EE, JSP, Servlets, Python, C#, XML.
Web Technologies: TypeScript, Ajax, Angular 9, React, Node.js, JSON, JavaScript, jQuery, HTML5, CSS, Bootstrap, Angular Material.
Frameworks: Express, Spring Framework, Hibernate, ASP.NET, Entity Framework.
Databases: MySQL, PostgreSQL, MongoDB, Oracle, MS SQL Server, PL/SQL.
Web Services: SOAP, RESTful, AWS Lambda, ECS, EC2, S3, Route 53, CloudFront.

Testing tools: JUnit, Spring Test, Protractor, Jasmine, Mocha, Karma.
Others: Git, TFS, SVN, Ant, Maven, Jenkins, Agile, Waterfall.

Education

Master of Computer Science   *May, 2018*
Temple University, Philadelphia, PA

Bachelor of Engineering   *June, 2014*
Hubei University, Hubei, China
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Work Experience

UI Developer, Capital One, McLean, VA

March 2020 to present

Project: AngularJS to Angular Migration (AAM)

Description: The AAM project is part of an effort to optimize user experience and remain on top of technological support for the Enterprise Account Servicing Experience (EASE) UI web application. It moves the framework used by EASE to the latest stable version, ensuring the application has support for any issues and bugs discovered during the lifetime of this version. It also provides the opportunity to dramatically improve the performance of the application with compiler optimization, removal of the reflect-metadata polyfill in production builds, and differential loading, and thus further optimize user experience.

Responsibilities
- Identify feature files in AngularJS directory and carefully analyze internal and external dependencies, and migrate services and components based on priority.

- Develop UI in VS Code using Angular 8 with the EASE UI code base. Use SASS as CSS preprocessor for advanced styling and follow the requirement in the EASE BuildBook and apply similar theme and color to maintain consistency in the UI.

- Utilize Nx to integrate the Monorepo development with Cypress, Jest, Typescript, and Prettier, keep the code DRY across the entire organization, and consistently build and test applications written with different tools and technologies.

- Leverage Mr. Data to generate mock data at runtime to support in-browser end-to-end testing, integrate with mountebank so that REST APIs can serve the generated mock data to client applications, and to enable test scenarios to create mock data used in tests by transparently mocking downstream REST APIs (e.g. the UI's orchestration layer)

- Implement services for dependency injection which binds UI data source with Web API for data input.

- Create reusable components that can be easily configured and adapted to different scenarios to reduce code repetition.

- Refactor code in a routine basis to optimize code efficiency and reduce code repetition as application grows big and adhere to coding convention that is established at the beginning of the project.

- Handle restricted routes for users with different privileges with Angular router guard, perform data transformation with pipes, and manipulate DOM with directives.

- Implement NgRx pattern for data and state management for EASE individual features.

- Rewrite the Typescript files to use the RxJS library for reactive programming with Observables, to facilitate composing asynchronous or callback-based code.

- Manage source control with Git and build CI/CD pipelines with Jenkins.

- Update documentation to inform team members of important changes.

- Discuss with team members when technical challenges occur. Research on similar cases in community and redesign solution if needed.

- Execute peer reviews in a routine basis to check for potential bugs to safeguard code correctness.

- Participate in daily stand-up meeting to report deliverable progress, facing issues and blocking items, such that to be aware of the current progress of the entire project and what other team members are working on.

UI Developer, SES Networks, Manassas, VA

August 2019 to February 2020

Project: Enhanced File Manager (EFM)

Description: EFM opens up opportunities to automate more complicated workflows, reducing the expertise and manually intensive actions needed to complete large scale reconfigurations of the MEO system. Improving customer service and customer experience. EFM hopes to serve as a single point of entry and provide an automated and reliable system for the management of ground terminal configurations across the MEO systems at SES. The vision of EFM is to reduce risk, eliminate errors and outages, and improving the end customer service and experience.

Responsibilities
- Combined visual design technology (Adobe PS, Adobe Illustrator, InVision, etc.) to build attractive digital environments as well as create quality mockups and prototypes while comply with UI/UX industry standards.

- Created components with Angular 7 and use RXJS to operate on Observables that pass data from API endpoints.

- Handled restricted routes for users with different privileges with Angular router guard, perform data transformation with pipes, and manipulate DOM with directives.

- Managed global traffic flow with AWS Route 53 to route end users to the best end points based on geo-proximity, latency and health.

- Organized and managed application data with AWS S3 to meet security and efficiency requirements.
- Used REST to create Angular services to send request from client and get response from server.
- Wrote quality unit test code with the Jasmine and Karma and contribute to the end to end testing with Protractor.
- Built shared UI components to enforce reusability by creating Angular libraries and publish to *npm*.
- Used SASS as CSS preprocessor for advanced styling and worked with Angular materials to create attractive and consistent web design.
- Managed source control with Git and built CI/CD pipelines with Jenkins
- Participated in the daily stand up meeting and managed Jira board as a part of the SDLC ensure product delivery in a timely manner.
- Optimized the application performance with Chrome Lighthouse, and by reducing JavaScript payload with code splitting, performing minification, and so on.

Full Stack Developer, Mutuality, Philadelphia, PA

January 2019 to July 2019

Project: Mutuality

Description: Mutuality is a social network platform that helps people to make effective, healthy, and inspiring social connections with others. It removes invisible social barriers and promote friendliness and help to create a happier and more harmonious society. The Mutuality platform includes a web app and mobile apps running both on Android and iOS.

Responsibilities
- Create UI designs with Adobe XD and built web applications from scratch single-handedly with React, Webpack, and Redux.
- Set up the routing configuration using React Router for various views and sub views.
- Developed and maintained mobile application with React Native.
- Implemented backend API end points with Node.js, Express, and MongoDB.
- Debugged Restful API with the help of Postman and DevTools.
- Utilized GIT as version control tool for effectively managing the code changes with team.

Web Developer, Temple University, Philadelphia, PA

October 2018 to January 2019

Project: Lab website development

Description: The Sbarro Health Research Organization (SHRO) at Temple University conducts advanced research devoted to understanding the molecular and cellular workings of cancer and cardiovascular disease, the connection between obesity and cancer, and molecular therapeutics. The lab website for Dr. Sun's research group at SHRO provides a platform to showcase the research group achievements as well as visualize key research finding data.

Responsibilities
- Designed, developed and maintained lab website with Adobe XD, React, Webpack, and Redux.
- Maintain the Linux lab server for data storage and site hosting.
- Implemented dynamic, interactive data visualization with D3.js.
- Participated in weekly group meetings to under user needs and make sure the product delivery meets user requirements.

Graduate Teaching Assistant, Temple University, Philadelphia, PA

September 2014 - December 2016

Courses: Data Structures, Introduction to Problem Solving & Programming in Python, Computer & Network Security

Responsibilities
- Led two weekly lab sessions to instruct undergraduate students in Python programming, Java Data Structures, and Computer and Network Security, answered questions, and graded programming assignments.
- Led weekly recitations to demonstrate to students key knowledge points from lectures.
- Held office hours to guide students on data structure assignments and questions.
- Graded quizzes, programming assignments, projects, and exams.