# Jackie Santana

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## Summary

I am a software engineer with a deep passion for blending the precision of back-end development with the creativity of front-end design. With 9 years of experience in technologies like React, TypeScript, Node.js, Python, and Ruby, I view coding not just as a profession but as a form of creative expression. This blend of skills enables me to create intuitive and engaging user experiences. My personal interests, particularly in reading about history and Greek philosophy, enrich my professional work by providing unique perspectives and inspiration.

### Skills

#### Core Web Technologies:

• HTML, CSS, Sass, Bootstrap

#### **Scripting and Programming Languages:**

• JavaScript, TypeScript, Node.js, Python, Ruby, Java (Spring Boot)

#### Front-End Development:

- Frameworks & Libraries: React (Redux, React Hooks), Vue.js, Angular
- Styling Libraries: Material UI
- Build Tools & Bundlers: Webpack, Vite

#### **Back-End Development:**

- Frameworks: Express, Next.js, Ruby on Rails, Flask, Django Version Control:
- API Technologies: GraphQL (Apollo Server), REST APIs, JWT Authentication, API Gateway

#### Databases:

- Systems: MongoDB, Firebase, MySQL, PostgreSQL
- ORM: Prisma

#### Containerization and Virtualization:

• Tools: Docker, Kubernetes (AKS, EKS), Linux

#### **Cloud Computing and Deployment:**

• Platforms: AWS (Lambda, S3, Fargate, EC2, ECS), Azure (CI/CD Pipelines), Digital Ocean, Linode

#### Continuous Integration and Deployment (CI/CD):

• Tools: CircleCI, GitHub Actions, Azure CI/CD Pipelines

#### Microservices and Server Management:

- Architecture: Experience with designing and developing microservices
- Server Management: Nginx, Apache

#### **Testing Frameworks:**

• Tools: Jest, Cypress, React Testing Library

Systems: Git

#### Project Management and DevOps:

Tools: Azure DevOps

#### Design and Prototyping:

• Tools: Adobe XD, Figma

## **Experience**

#### SENIOR FULL STACK REACT/NODE.JS DEVELOPER | 02/2024 - Current

#### iTarks/Walgreens - Remote

- Full-Stack Development: Contributed to both front-end and back-end development for the DCP Portal using React and Node, is, enhancing its capabilities for Walgreens agents. Developed key features such as refund processing, tax calculations, and order results display, improving user experience.
- Component and Page Development: Worked on the ViewCurrentOrder component, CompleteReturnOrder, and ConfirmReturnOrder pages in React, ensuring seamless user interactions. Created the Contact Lens Order Search

functionality, enabling efficient searches for contact lens orders.

- Maintained Legacy React Codebase: Managed and updated a React 15 codebase using class components, resolving numerous bugs and enhancing system stability. Implemented new features and conducted thorough testing and debugging for high-quality code.
- **Node.js Server Route Maintenance**: Worked alongside Node.js server routes to maintain them, ensuring proper creation of cookies, authentication, encryption, and caching. Verified that server routes were correctly interacting with the React front-end client.
- **Customer Profile Management**: Developed interfaces using React for agents to access and modify customer profiles, streamlining customer support operations. Ensured efficient data handling and improved the overall functionality of the portal.
- CI/CD Pipeline and Deployment: Utilized Azure DevOps for continuous integration and continuous deployment (CI/CD) pipelines. Configured webpack for bundling and optimizing the React application. Deployed the application to AWS using Kubernetes, setting up pods (possibly using AWS Fargate) for scalable and reliable deployment.
- Cross-functional Collaboration and Documentation: Collaborated with product managers, designers, and backend engineers to ensure seamless feature integration and optimal performance. Provided detailed documentation for new features and updates, supporting knowledge transfer and future maintenance efforts.

#### SENIOR SOFTWARE ENGINEER | 02/2022 - 01/2024

#### BI Worldwide/ Verizon Wireless - Remote

- **Built Advanced Comment Thread Feature**: Developed a sophisticated comment thread system in React and TypeScript, employing recursive algorithms to handle Reddit-style nested comment structures. Implemented a polymorphic design for a YouTube-like algorithm, limited to one level deep, and integrated these features into a shared, reusable library for broader application use.
- **Data Visualization and Analytics:** Created a range of interactive graphs and charts to display data from the "FeedbackHub," including quiz, survey, and open idea responses. Utilized AG Grid, React Chart, and Chart.js for effective data visualization, aiding in the analysis and interpretation of user feedback.
- Employee Nominations and Recognition CMS: Played a pivotal role in the development of an internal nomination system designed to recognize employee performance. This system, a custom-built CMS, enabled moderators to assign permissions and roles, facilitating a streamlined process for acknowledging outstanding work.
- Collaboration and Backend Integration: Worked closely with product managers and Java backend engineers to enhance feature integration and system functionality. Contributed to server setup and API development using Node.js Express, adhering to the waterfall methodology for structured project management.
- Maintenance and Server Management: Ensured the reliable operation of these systems on an EC2 server within the AWS ecosystem, employing NGINX for server management and optimization.

#### **SENIOR SOFTWARE ENGINEER** | 09/2021 - 02/2022

#### Modis/Relx - Remote

- Led Development of Legislative Search Query Tool: Pioneered a sophisticated search tool for legislative records using GraphQL and Apollo Client, greatly enhancing legal data accessibility during a key data migration project from IBM Informix to a React TypeScript UI with Node.js.
- Performance Optimization in React Application: Optimized the Informix TypeScript React application, employing
  useMemo and useCallback for improved memory efficiency, ensuring the system's responsiveness and stability
  post-migration.
- Innovative Edit/Update Feature Implementation: Played a crucial role in developing an Edit/Update feature for records, integrating GraphQL mutations and Apollo server's resolvers with Prisma ORM. This feature was instrumental in the smooth transition to the new React-based system.
- Efficient Database Management with Prisma ORM: Managed database connections with Prisma ORM, ensuring efficient data interaction with the MySQL database, a critical aspect of the migration process.
- Collaboration and Quality Assurance: Worked closely with product managers and designers, using Git and

AzureDevOps for streamlined version control and collaboration. Enforced a dual-review process for quality assurance, and incorporated sitemap XML for improved SEO.

• Agile Project Management & Advanced Testing: Led the project in an Agile setting, maintaining ECS servers in AWS and ensuring code integrity from production to deployment. Utilized Jest and Cypress for comprehensive E2E and unit testing, guaranteeing robustness post-migration.

#### FULL STACK WEB DEVELOPER II | 01/2021 - 09/2021

#### Brash Ent - Chesapeake, VA

- Managed React Application on AWS EC2: Successfully oversaw the team's React Application for a public transit
  tracking platform, hosted on AWS EC2 with Debian Linux. Ensured seamless deployment and reliable operation,
  crucial for real-time transit updates.
- **Docker for Consistent Development and Production Environments**: Implemented Docker containers to establish a uniform environment across both development and production, enhancing the system's stability for the transit tracking application.
- **Custom WebPack Configuration for React TypeScript**: Developed a bespoke WebPack configuration tailored to React TypeScript, optimizing the performance of the transit tracking application.
- Node.js and Express for Serving and Authentication: Employed Node.js with Express framework to serve the
  application, and set up a Node.js-based microservice for user authentication, enhancing security and user
  experience on the tracking platform.
- **Ruby on Rails Microservice Integration**: Incorporated a Ruby on Rails microservice to handle specific backend tasks, such as processing transit schedules and data feeds, playing a key role in the platform's data management.
- Enhanced Server Security Measures: Strengthened server security using Let's Encrypt for SSL certification, disabling default ports, setting up UFW firewall rules, and enforcing SSH key authentication to protect the transit data and user information.

#### **FULLSTACK DEVELOPER** | 02/2020 - 12/2020

#### Cold Fusion - Houston, TX

- Python Integration for Automation and Authentication: I harnessed the power of Python to automate critical backend processes and manage CSV exports for our React frontend. This approach streamlined our data handling, making it more efficient. Notably, I also implemented Python scripts for robust authentication mechanisms, enhancing security and user trust.
- Efficient Data Fetching with AJAX: By employing AJAX, I enabled dynamic fetching of JSON data, seamlessly integrating it into GraphQL for efficient query and mutation resolvers. This significantly improved our data interaction and manipulation capabilities, making the system more responsive and user-friendly.
- Advanced Backend Development with Node.js, Express, and TypeScript: I took the lead in leveraging the Node.js
   Express Framework, coupled with TypeScript and TypeGraphQL, to create a flexible and robust backend.
   Incorporating Prisma as an ORM with PostgreSQL, I ensured our database interactions were efficient and scalable.
- **Effective Team Communication via Slack**: Daily communications on Slack were a critical part of my routine, ensuring I stayed in sync with engineers, designers, and the product manager. This ensured that everyone on the team was aligned and up-to-date on project developments.
- Active Participation in Design and Product Strategy: My involvement extended to weekly design and product strategy meetings, where I frequently presented updates and insights. This included showcasing our React Frontend Health Application and discussing key features such as surgical procedure information and billing. I also took the initiative to develop a COVID data API using Python for web scraping, demonstrating my commitment to continuous innovation and improvement.

#### FULL STACK DEVELOPER/CONSULTANT | 01/2019 - 01/2020

#### MRE Consulting - Houston, Texas

• **Streamlined User Data Management with GraphQL**: I implemented GraphQL to efficiently manage user data, facilitating seamless queries and mutations to the database. This integration significantly enhanced the user

interaction and data handling capabilities of our React JS frontend.

- Versatile Database Development with MySQL/MongoDB: My experience extended to developing and deploying robust applications utilizing both MySQL and MongoDB. This demonstrated my adaptability and proficiency in handling various database technologies to suit different project needs.
- **Custom React Webpack Optimization**: I designed and implemented a custom webpack configuration for React JS applications, incorporating gzip and image compression plugins. This optimization ensured high performance and responsiveness on both mobile and desktop platforms, meeting the demands of modern web standards.
- **SEO Enhancement with Node.js**: Leveraging Node.js, I enabled effective Search Engine Optimization for our web applications. By aligning with Google bots' indexing algorithms, I significantly boosted our online visibility and search rankings.
- Cross-Platform Sales Training Portal Development: In a unique project for an Oil Rig company based out of SugarLand, I created a CRM and sales training portal. This involved using Salesforce CMS with Apex, HTML, Bootstrap, and CSS to craft an educational platform focused on oil sales training and industry operations. My role in this project showcased my capability to develop multi-platform solutions that address specific industry needs.

#### **NODE.JS/UI DEVELOPER** | 01/2018 - 11/2018

#### **Enquire Solutions - Houston, TX**

- **Real-Time Data Visualization with Apex Chart.js**: I integrated Apex Chart.js in our React JS frontend to develop real-time, interactive data visualizations. These visualizations effectively displayed company sales gains/losses and projections, greatly enhancing our analytical capabilities and providing valuable insights into business trends.
- Seamless Front-End to Back-End Integration using Node.js: My role involved leveraging Node.js to ensure a smooth and efficient connection between the React frontend and the backend. This integration was crucial for facilitating uninterrupted data flow and interaction, supporting the functionality of our drill-down reporting features.
- **Development of Tailored MongoDB Applications**: I focused on designing MongoDB applications specifically customized to meet the unique needs of our clients. This demonstrated my commitment to client-centric solutions and my ability to innovate and solve complex problems effectively.
- Module Integration in Node.js for Enhanced Functionality: By skillfully integrating various modules into Node.js, I played a key role in aligning them with project designs and requirements. This approach allowed us to offer more customized and functionally rich solutions to our clients.
- Data Querying with Apollo-Server and Express: Utilizing Apollo-Server along with Express, I enhanced our data querying capabilities. This setup allowed for efficient querying of JSON data using GraphQL, which was then seamlessly transferred to Apollo Client on the frontend. This system was integral in presenting drill-down reports in various graphical formats using Chart.js, thereby improving data handling and the overall responsiveness of our applications.

#### **FULL STACK DEVELOPER** | 05/2017 - 12/2017

#### RJS Associates Inc. - Glastonbury, CT

- Redux for Enhanced Legal Application Performance: Optimized the law firm's application by implementing Redux, leveraging my expertise in Object-Oriented programming to improve state management and user interaction. This approach significantly enhanced the responsiveness and efficiency of the application, particularly in managing complex legal data and trial results.
- Angular Development for Dynamic Legal Interfaces: Demonstrated my Angular proficiency in developing the firm's
  web application, utilizing Directives, Controllers, Filters, Services, Templates, Events, and Injectors. My work involved
  creating dynamic and user-friendly interfaces that catered to the specific needs of legal professionals and their
  clients, such as accessing trial data and consultancy resources.
- **Node.js & Express for Robust Backend Solutions**: Employed Node.js and the Express Framework to develop and maintain a robust backend for the law firm's application. This foundation supported the intricate data processing required for trial management and legal consultations, ensuring a seamless and secure user experience.
- **REST API Integration for Legal Content Accessibility**: Focused on enhancing the SEO of the law firm's digital content through the integration of REST APIs and server-side template engines. My efforts ensured that crucial legal

information, trial results, and consultancy services were easily accessible and ranked favorably in search engine results, thus increasing the firm's online visibility and client engagement.

#### **PYTHON/FLASK DEVELOPER** | 10/2016 - 04/2017

#### TouchSource - Glastonbury, CT

- Flask Web Application Development for E-Book Platform: Spearheaded the development of a web-based
  e-commerce and e-book platform using Flask, applying the MVC architecture to ensure streamlined and
  maintainable application design. My focus on modularity and efficiency played a crucial role in creating a scalable
  and robust platform for e-book readers and shoppers.
- Robust API Design with Flask and Jinja Templates: I crafted a powerful RESTful Web Service API for the platform, enhancing data interconnectivity and handling. Utilizing Jinja templates within Flask, I facilitated seamless integration and dynamic content rendering, crucial for the platform's diverse e-commerce functionalities.
- Interactive UI Screen Design: My role included designing intuitive UI screens, employing a combination of Jinja, Ajax, HTML, and JSON. I implemented client-side validation using JavaScript, which resulted in interactive and user-friendly interfaces, significantly enhancing the user experience for browsing, rating, and providing feedback on e-books.
- PostgreSQL for CRM Database Management: Managed the platform's customer relationship databases using
  PostgreSQL. This included maintaining accurate and organized data storage, which was essential for effective
  customer engagement, tracking user feedback, and gaining valuable insights into reader preferences and
  behaviors.

#### **FRONT END DEVELOPER** | 06/2016 - 10/2016

#### Zag Interactive - Glastonbury, CT

- **UI/UX Design Analysis and Enhancement**: I led a thorough analysis and overhaul of the UI/UX design for a popular clothing e-commerce site, catering to over 200,000 unique visitors. My focus was on creating a responsive layout that not only met modern aesthetic standards but also significantly improved usability and user satisfaction.
- **Revitalization of E-Commerce Site Interface**: Undertook a major revamp of the site's UI, aligning the interface with contemporary design principles while enhancing functionality. This redesign was pivotal in elevating the shopping experience, making it more intuitive and appealing for our substantial user base.
- **Performance Optimization through Automation**: Implemented the Parcel bundler to automate image optimization and minify JavaScript and CSS. This strategic move reduced page load times by up to 30%, markedly boosting site efficiency and enhancing the overall user experience, especially crucial for a high-traffic retail platform.
- **E-Commerce Features Development**: Played a key role in developing essential e-commerce features, including an intuitive shopping cart and seamless payment processing. Integrated Stripe API for secure and efficient transactions, ensuring a smooth checkout experience for customers.

## Core Expertise and Versatility in Software Development

While my resume predominantly showcases proficiency in React, TypeScript, and Node.js, it's important to note that Python, Ruby, and Angular are secondary skills in my toolkit. The depth of my experience in React and related technologies naturally positions them as my primary strengths. However, this doesn't diminish my capability in other languages and frameworks. One of my key strengths is my ability to learn quickly. This trait, combined with a strong foundation in Object-Oriented Programming, primitive data types, and core programming fundamentals, enables me to adapt to different languages and frameworks beyond my main areas of expertise with ease. The essence of programming remains consistent across various technologies; it's often just a matter of syntax and context. Therefore, given the opportunity, I am confident in my ability to work effectively with these secondary tools and languages, leveraging my adaptable skill set and quick learning ability to excel in diverse programming environments.

- https://jackiesantana.net
- https://github.com/jackie1santana
- https://stackoverflow.com/users/11827033/jackie-santana

## **Education and Training**

New York Real Estate Institute - New York, Ny Real Estate Agent, 05/2018

LaGuardia Community College - GED 07/2011