JEFF SANTOS

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Skills

- **Frontend:** React, React Native, TypeScript, HTML, CSS, Swift, Redux (Sagas, Toolkit), Styled Components, Responsive & Cross-platform Dev
- **Backend:** Python, Node.js, Express, Tornado, Flask, PostgreSQL, MySQL, MongoDB, SQLAlchemy, REST & GraphQL APIs
- **DevOps & Systems:** Linux, Docker, AWS (S3, EC2), Azure, CI/CD, OpenVPN, HAProxy, Nginx, SSH, Git, Bash
- **Integrations:** Shopify, Stripe, SendGrid, JWT, Keycloak, OAuth 2.0, WebSockets, AdMob

Experience

Lead Software Engineer, Full Stack   June 2023 – Present
Switch Health   *Toronto, ON*

- Enhanced the **Marketingsite UI** using **Shopify Liquid**, enabling dynamic content rendering and improved customization for a seamless user experience and reducing friction to sales.
- Led a comprehensive **UI refresh**, enhancing usability, accessibility, and modernizing the front-end experience.
- Developed a **White Label architecture** to support B2B tenants, enabling customized branding and workflows.
- Built scalable healthcare solutions using **React**, **Styled Components**, **TypeScript**, **Redux Sagas**, **Python (Tornado)**, and **MySQL**.
- Implemented a robust **component versioning system** for recall management, ensuring regulatory compliance and enhanced flexibility for version control.

- Enhanced the system to accommodate a wide range of medical tests (HPV, STI, HbA1c) by implementing **optimized database architectures** and integrating a **CI/CD pipeline** for **seamless deployment** of new test types.

- Executed critical **database migrations** of over 5000 lines while maintaining **zero downtime** and ensuring data consistency for 4 million+ users.

- Orchestrated front-end migration from **React Redux** to **Redux Toolkit**, enhancing **developer productivity** and reducing bundle size.

Software Engineer, Full Stack   April 2022 – June 2023
Switch Health   *Toronto, ON*

- Architected **RESTful APIs** for complex test types, integrating back-end systems to handle high-throughput data with optimized **API performance**.

- Migrated **core test data** from front-end and back-end storage to a **centralized database** for improved consistency and scalability.

- Debugged and tested software, identifying and resolving critical issues to maintain system reliability and performance.

- Engaged in thorough **code reviews**, enforcing best practices and ensuring high-quality maintainable code.

Projects

Lead Software Engineer, Full Stack
Family Albums   *Toronto, ON*

- Designed and built a **clean, user-friendly UI** for managing and categorizing family albums, ensuring intuitive navigation and seamless organization.

- Developed a highly available cloud storage platform with **React**, **TypeScript**, and a **Python/Tornado** API integrated with **AWS EC2, S3**, and **PostgreSQL**.

- Integrated **Stripe** for secure payment processing, enhancing transaction reliability using **SSL certificates** and advanced **encryption methods**.

- Monitored and maintained the production environment using **Slack webhooks**, **HAProxy**, and **Docker containers** for streamlined operational insights and fast deployment.

- Developed **custom python scripts** for managing multipart uploads and triggering automated email notifications for customers using a **database queue**.

Lead Software Engineer, Full Stack

Realty Host   *Toronto, ON*

- Designed and implemented a **White Label architecture, enabling custom UIs** for each realtor tenant while maintaining a unified back-end.

- Engineered a scalable real estate platform with **Node.js** and **Keycloak** for secure authentication, integrated with the Toronto Regional Real Estate Board (TRREB) via **Ampre API** using **OData**.

- Developed a **custom property search client**, utilizing trial-and-error solutions to resolve sparse API documentation and optimizing **API request-response cycles**.

- Implemented a secure, highly performant back-end using **OAuth 2.0** and **JWT-based authentication** for data integrity and user privacy.

Software Engineer, Frontend

Daily Forecast   *Toronto, ON*

- Developed an iOS weather application using **Swift**, incorporating **Core Data** and plist for efficient data management and persistence.

- Accrued over twenty thousand downloads, with one thousand active daily weather requests.

- Incorporated ads using **Google AdMob** to monetize user activity.

- Migrated the application to the **OpenWeather 3.0 API** for real-time weather data retrieval, improving the app's accuracy and reliability.

Software Engineer

NTML   *Toronto, ON*

- Developed a lightweight **Frontend Framework**, a highly extensible **HTML Domain-Specific Language (DSL)** written in **Nim**, designed to enhance **front-end development** with a React-inspired component model.

- Utilized **Nim Macros** and **Templates** to streamline web development workflows, improving code maintainability and developer experience.

Software Engineer

KeepItSimpleServer   *Toronto, ON*

- Developed a lightweight HTTP server framework for Python, emphasizing minimalism and efficiency.

- Implemented support for HTTP methods including **GET, POST, PUT, PATCH, and DELETE**, enhancing RESTful API development.

- Designed pre and post-request hooks (**prepare()** and **on_finish()**) to streamline request handling and improve code modularity.

- Enabled both synchronous and asynchronous request handling by supporting **HTTPServer** and **ThreadingHTTPServer**, increasing flexibility for various application needs.

- Facilitated robust JSON-based error handling and parsing of query parameters and JSON bodies, improving developer experience and application reliability.

Past Experience

Founder & Business Manager   January 2012 – December 2021

Like New Renovations   *Toronto, ON*

- Founded and led a renovation business, overseeing both residential and commercial projects with a focus on **operational efficiency** and cost control in **high-pressure environments**.

- Managed **cross-functional teams**, ensuring safety compliance and timely project completion.

References available upon request.