JEFF SANTOS

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Skills

- **DevOps & Systems Management:** Linux, Docker, Amazon AWS (S3, EC2, CloudWatch), Microsoft Azure, CI/CD pipelines, MVC, OpenVPN, SSH, Git, Bash, SMTP, SFTP, Kubernetes, Terraform

- **Languages:** TypeScript, Python, Nim, Swift, Objective-C, C, C++, Java, Liquid, Shell scripting

- **Web and Mobile Development:** React, React Native, HTML, CSS, XML, YAML, JSON, SwiftUI, Flutter, Responsive Design, Cross-platform Development

- **Frameworks & Libraries:** Redux (Sagas, Toolkit), Node.js, Express, Tornado, HAProxy, Nginx, Flask, Django, Serverless Framework

- **Database Management:** PostgreSQL, MySQL, MongoDB, Redis, NoSQL, SQLAlchemy, Database Optimization, Sharding, Data Replication

- **Integrations:** Shopify, Stripe, SendGrid, OneTrust, JWT, Keycloak, OAuth 2.0, Contentful, Slack Webhooks, RESTful APIs, GraphQL, Microservices, WebSockets

Experience

Lead Software Engineer, Full Stack   April 2022 — Present
Switch Health   *Toronto, ON*

- Led development of scalable healthcare solutions with a highly optimized **microservices architecture** 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.

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

- 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**.

- Enabled **asynchronous data processing** for faster test results and improved system throughput.

Lead Software Engineer, Full Stack   January 2024 — Present
Family Albums   *Toronto, ON*

- 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.

- Developed **custom cron jobs** for managing multipart uploads and triggering automated email notifications for customers.

Lead Software Engineer, Full Stack   January 2024 — Present
Realty Host   *Toronto, ON*

- 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.

Projects

Software Engineer   January 2024 — Present

NTML   *Toronto, ON*

· Developed **NTML**, 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, Full Stack   **January 2024 — Present**
BandUpp   *Toronto, ON*

· Developed a **React Native** mobile chat app, incorporating secure **end-to-end encryption** and **real-time WebSocket communication** to enable seamless user interactions.

· Designed and implemented the back-end with **Node.js** and **PostgreSQL**, integrating **fund management** features for group financial tracking.

· Integrated markdown support and used **modular architecture** for easier feature extensibility and faster development cycles.

Software Engineer, Full Stack   **January 2022 — Present**
Daily Forecast   *Toronto, ON*

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

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

Software Engineer, Full Stack   **January 2022 — Present**
World Tree Notes   *Toronto, ON*

· Developed a hierarchical note-taking app using **NoSQL querying techniques** to allow users to link ideas and notes with advanced **data aggregation** methods.

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.