Abilaesh Kandiah

Senior Software Engineer

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Senior software engineer with 7 years of experience architecting workflow automation systems and full-stack services. Proven track record in dynamic startup environments, serving as a core developer through a successful acquisition by Nuix. Expert in multi-threaded Java services, asynchronous task execution and scalable React architectures. Seeking a leadership role to mentor engineering teams and deliver innovative, enterprise-grade software solutions.

Education

Bachelor of Engineering, Computer Engineering — Sept 2014 – Apr 2018
Toronto Metropolitan University (formerly Ryerson University) — Toronto, CA

Experience

Senior Software Engineer — Aug 2018 – Feb 2025
Rampiva (acquired July 2023) ⟶ Nuix — Remote / Toronto, CA

Served as a core full-stack developer on the Java and React-based workflow automation platform that significantly improved data processing throughput – with reported improvements of over 350%.

- **Front-end Systems Architecture**: Led the development of multiple React web applications, designing modular component libraries and ensuring system-wide compliance with internationalization (i18next) and WCAG accessibility standards.
- **Technical Mentorship:** Mentored junior and intermediate developers through code reviews, design debates and pair programming to uphold code standards and engineering best practices.
- **High-Speed Data Upload**: Architected a resumable data upload system utilizing Java ByteBuffers to achieve stable 500 Mb/s speeds, enabling clients to process TB-scale datasets.
- **Multi-Threaded Service**: Designed and implemented a full-stack legal hold notification engine utilizing thread pools and stateful task management to handle concurrent workloads.
- **Internal Automation Tool**: Spearheaded the development of a Java-to-React form builder that used reflection and class annotations to programmatically generate 200+ operation forms, significantly reducing front-end development time.
- **Automated E2E Tests**: Structured a comprehensive Selenium end-to-end testing suite (200+ tests) integrated into a Jenkins CI/CD pipeline to ensure system reliability.
- **Third-Party Integrations**: Researched and developed automated integrations for Google and Microsoft eDiscovery platforms, managing OIDC authentication and end-to-end data preservation and collection logic.
- **Systems Troubleshooting**: Performed deep-level debugging of internal and client-facing issues using network debuggers, stack trace analysis and debug logs to maintain high system availability.
- **Security & Lifecycle Management**: Managed core code repositories and mitigated security vulnerabilities identified via Snyk and Sonar to maintain enterprise-grade software integrity.

Technical Skills

- **Languages**: Java, JavaScript, TypeScript, Python, Go, C/C++, Shell (Linux), SQL, GraphQL, HTML/CSS.
- **Cloud & Infrastructure**: AWS, Azure, Cloudflare, GCP, Jenkins (CI/CD), Docker (Containers), Virtual Machines, Snyk, Sonar.
- **Tools & Frameworks**: React, Redux, Sagas, Dropwizard, Spring, Selenium, JUnit, Node, Git, AI, Cursor, Fiddler, Wireshark.
- **Engineering Foundations**: Multi-threading, Concurrent Processing, Memory Management, Data Streams, Encryption, System Design, Caching, Message Queues, Computer Architecture, Operating Systems, Computer Networks and Security.

Key Projects

Data Upload via tus

- Engineered data upload support to the Automate web application by customizing and integrating open source projects based on the tus resumable file upload protocol.
- Optimized file system write operations over network shares by implementing direct Java ByteBuffers, increasing cache sizes and using separate threads for reads, writes and file hash calculations.
- Achieved stable data transfer rates exceeding 500 Mb/s across distant geographical locations, supporting file uploads of up to 1 TB and more.

Automate Web Application

- Spearheaded and sustained the core React front-end web application for the Automate platform, utilizing Redux and Redux-Sagas to manage complex, asynchronous side effects and system states.
- Designed a modular component library based on composition patterns for re-usability, integrated with i18next internationalization and WCAG accessibility standards for global deployment.
- Engineered high-performance solutions including virtual rendering to handle large datasets efficiently and Web Worker scripts to offload intensive computations from the main execution thread.
- Implemented advanced features including localized caching strategies, OIDC-based authentication and automated token refresh cycles to ensure system security and reliability.

Third-Party Services Framework

- Pioneered a standardized architectural framework for third-party service integration, utilizing abstract design patterns for Object-Relational Mapping (ORM) and RESTful API resources.
- Developed a modular authentication and authorization feature supporting diverse mechanisms including OIDC, username and password and API keys.
- Implemented robust error handling including exponential back-offs and API rate-limiting.
- Facilitated the rapid deployment of over 10 enterprise-grade integrations, including the Microsoft Purview and Google Vault collectors.

Microsoft eDiscovery & Google Vault Collector

- Researched and implemented automated data preservation and collection workflows by interfacing with Microsoft Purview and Google Vault via RESTful APIs and OIDC authentication protocols.
- Supported connections to user-defined M365 and Google Workspace environments via configurations.

Java-to-React Form Builder

- Implemented a tool to auto-generate React forms based on Java class and field annotations, removing front-end development time and maintenance.
- Supported complex components such as input lists, tables and nested object forms via recursion, as well as grid layouts, labels, custom styles and borders.

Legal Hold Notifications

- Orchestrated the end-to-end build of a legal hold notification system within the Automate product.
- Implemented normalized relational schemas to ensure data integrity and system reliability.
- Engineered a multi-threaded execution engine utilizing thread pools and stateful tasks to manage high-concurrency workloads.
- Built support for single-sign on (SSO) links and synchronization of users from M365 and LDAP user directories.
- Supported connections to user-provided SMTP servers for sending email notifications.