Jared Tucker

jntucker@gmail.com | *0423 530 025* | Linkedin | GitHub
Fullstack Software Engineer

Experience

Software Engineer *Leidos Australia*   January 2024 – Ongoing

- Contributed core technical design and implementation for migration of monolithic application to microservice architecture, architecting communication patterns using Kafka event streaming and designing service boundaries that improved system resilience and reduced deployment risk across a 12-engineer team.
- Architected and developed 5+ production microservices in Kotlin/Spring Boot with MongoDB, implementing asynchronous event processing and further optimized schema designs that reduced database load by 40% and improved API response times from ~350ms to ~200ms for key endpoints
- Designed and implemented real-time notification, communication and unread indicator systems embedded across the entire application suite, leveraging Kafka event streams and WebSocket connections to deliver sub-second updates across siloed user environments and international deployments with 99.9% message delivery reliability
- Established authentication and authorization infrastructure using Keycloak, architecting integration patterns for multiple integrated microservices, utilising the combination of Kafka and Keycloak event management that enabled isolated microservices real time user, organisation and team data query capabilities while maintaining centralized identity management and role-based access control.
- Led technical redesign and restructure for an intelligent message routing service supporting international deployments, implementing a Kafka-based pipeline that would run complex data objects through a series of rule-based engines to determine its correct routing recipients based on dynamic guidelines and acceptance criteria. Improving routing speeds by 30% and improved overall correctness of routing capabilities

Technical Skills

Languages: Kotlin, TypeScript, JavaScript, Java, Python, SQL, C#

Backend/Architecture: Spring Boot, Microservices Architecture, Event-Driven Design, Kafka, RESTful APIs, GraphQL/Wundergraph, MongoDB, PostgreSQL

Frontend: React, Next.js, TypeScript, Angular, Server-Side Rendering, State Management

Infrastructure & DevOps: Docker, Kubernetes, Keycloak (Identity & Access Management), Git, Bash

Open Source Projects

Okuri (WIP) | *ReactJs/Next.js, Kotlin, Springboot*   GitHub

- Building feature-complete CRM platform with fully customizable, drag-and-drop layouts supporting diverse business workflows, currently in final MVP phase approaching market launch
- Engineered dynamic layout system extending Gridstack.js library with custom React components, enabling real-time collaborative editing and persistent configuration management
- Integrated self-hosted N8N workflow automation engine, architecting REST API bridge that allows users to build custom business process pipelines and event-driven automations without code

FlexTask | *ReactJS, FastAPI, OpenAI API, MongoDB*   GitHub – Devpost

- Utilized OpenAI's natural language processing capabilities to analyse and understand the input description of project
- Leveraged Machine learning algorithms to generate relevant subtasks based on the input description to help increase user productivity and workload management capabilities.

Education

Monash University   November 2023

Bachelor of Computer Science   *Melbourne, VIC*

Community Events

UNIHACK 2023   March 2023

- Participated in UNIHACK 2023 hosted by UNIHACK inc, collaborating with a team of 6 to develop a project within 48 hours using OpenAI's natural language processing to simplify project management by breaking down main projects into subtasks for better productivity, Utilising ReactJS, FastAPI, OpenAI API and MongoDB.