Joseph Pongonthara

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Professional Summary

Product-focused Full-Stack Engineer with experience designing and building scalable software systems using React, Node.js, TypeScript, and Python. Strong foundation in data ingestion, backend architecture, and integrating LLMs into user-facing applications. Comfortable operating in ambiguous problem spaces, translating real-world inputs into structured systems and actionable insights.

Education

University of Waterloo — Waterloo, Canada
Bachelor of Applied Science in Mechatronics Engineering — *Graduated 2025*

St. Michael's Choir School — Toronto, Canada
Valedictorian, Student Council President — *Graduated 2019*

Technical Skills

- **Languages:** Python, Javascript, TypeScript, C++, Embedded C, SQL, MATLAB
- **Software Development Tools:** React.js, REST APIs, Next.js, Git, Selenium, JIRA, Docker/K-Native
- **Backend & Cloud:** Palantir Foundry & AIP, Azure Cosmos DB, PostgreSQL, Supabase, LLM Integrations, AWS (familiar)
- **Core Competencies:** Full-Stack Development, Client-Server Architecture, Distributed Systems, Real-Time Systems, Algorithm Design, Data Structures, Database Management

Professional Employment History

AI Prototype Engineer — Tenuto Labs — May 2025 - Present

- Worked as part of a dynamic agile team throughout the software development life cycle; conducted technical discovery sessions and requirements gathering with stakeholders, including C-level executives, iteratively translating user feedback into clearly defined MVP features and functional software solutions.
- Deployed AI-powered data transformation prototypes to Azure-based infrastructure, implementing secure API authentication, telemetry logging, and automated test coverage for reliability at scale.
- Designed and documented a scalable backend architecture using PostgreSQL (via Supabase) and Azure, ensuring secure, real-time data delivery for AI-powered solutions.
- Designed API architecture and internal tooling decisions across frontend and backend components.
- Integrated continuous stakeholder feedback into feature design, applying agile best practices to deliver a prototype ready for MVP production in 10 weeks.
- Developed internal AI tooling to ingest, structure, and analyze AI thought-leader content from sources including X and LinkedIn, building a reusable LLM-backed chat interface that enables rapid querying of expert viewpoints to accelerate internal research, client discovery, and product ideation.

Product Engineering Intern — Callidus Engineering — January - August 2024

- Interviewed engineering and design teams to understand workflow bottlenecks, then developed Python automation tools that reduced their manual review time by 30%.
- Standardized CAD workflows and implemented version control for drawing revisions via Git-based documentation system.
- Acted as technical liaison across multidisciplinary teams (electrical, mechanical, software), streamlining data handoff processes.

Product Engineering Intern — Quasar Consulting Group — January - April, September - December 2022

- Delivered high-volume AutoCAD and Revit drawing packages for large-scale residential and commercial builds, often under aggressive timelines.
- Developed and maintained internal Python-based macro tools to automate repetitive workflows, including code compliance verification, multi-layered drawing audits, and detailed version history tracking for engineering documentation.
- Liased with approval officials at various municipalities to ensure and improve approval speed.

QA Automation Intern — i4i — January - April, September - December 2020;

- Developed and maintained Python/Selenium automated test suites for pharmaceutical regulatory documentation tools.
- Created test plans & automated regression suites, integrated with JIRA and internal dev pipelines.
- Collaborated with software engineers to reproduce, triage, and document bugs during product releases.
- Supported the team in transitioning from manual QA to automated test coverage, improving efficiency and scalability.