

Jen Yang Koh

[5875669053](tel:5875669053) | jenyang.koh@gmail.com | linkedin.com/in/jenyangkoh | github.com/jenyangk

EXPERIENCE

PCL Constructors Inc.

Software Developer

October 2021 – Present

- Spearheaded the architecture and development of the JSI™ mobile app using .NET MAUI, providing a user-friendly interface for construction site management that led to an increase in mobile user adoption by 92%
- Designed and documented scalable end-to-end data pipelines, identifying redundancies and optimizing workflows to streamline operations and cut costs by 90%, delivering significant budget savings
- Optimized deployment pipelines to improve infrastructure reliability and scalability, resolving race conditions and achieving a 95% deployment success rate, while reducing engineer interaction with the automation process by 40%
- Established alerts and diagnostic scripts to address telemetry backlogs in high-throughput systems, reducing issue detection times by 40% and enabling immediate resolution for critical outages
- Developed an algorithmic predictive tool that automated camera positioning for optimal site coverage, reducing installation time by 50%, especially benefiting remote sites with limited internet access
- Directed a cross-functioning team to develop and deploy IoT solutions to monitor and optimize construction site operations, achieving a 30% improvement in end-to-end streaming latency by implementing event queue auto-scaling and device-based partitioning to prioritize time-sensitive data processing, ensuring high system performance and reliability
- Designed and implemented new portal features tailored to customer use cases, such as geozone object detection and fence intrusion alerts, enhancing functionality to address evolving client needs

Construction Technology Analyst

June 2021 - October 2021

- Coordinated and executed technology upgrades and system enhancements across PCL's main Edmonton campus, acting as the primary technical liaison and ensuring seamless deployment and integration with existing infrastructure
- Delivered high-level technical support for executive teams, including quick resolutions to IT issues, system troubleshooting, and proactive support measures to minimize downtime for critical personnel
- Developed and deployed PowerShell scripts to automate data backup and migration, streamlining workflows and reducing manual labor by 20%, leading to notable time and cost savings for the team

PROJECTS

DouDou | React, TailwindCSS, ShadCN, Supabase, S3

Oct 2024 – Present

- Developed an interactive photo voting app with a multi-phase workflow for users to join sessions, submit photos, and vote on submissions in real-time.
- Session owners control the process flow, finalize top-voted photos, and facilitate in-person prize awards.

SE-OER | React, Material-UI, Django, PostgreSQL

January 2020 – May 2020

- Led a team of 4 in developing a collaborative web app for Software Engineering quizzes, enabling users to create, customize, and self-assess on topic-specific questions.
- Directed team efforts on user-friendly platform development to foster peer-driven study and continuous skill improvement.

EDUCATION

University of Alberta

Edmonton, Alberta, Canada

Bachelor of Science in Computer Science, Minor in Psychology

TECHNICAL SKILLS

Languages: Typescript, Javascript, C#, Golang, SQL (Microsoft SQL Server, PostgreSQL), HTML/CSS, Python

Frameworks & Libraries: Angular, React, .NET, .NET MAUI, React Native, TailwindCSS, ShadCN, RxJS, Fusioncharts

Cloud & DevOps: Microsoft Azure (Functions, App Service, Service Bus, Event Hub, IoT Hub, Key Vault, Blob, Queue, Table), AWS (EC2, S3, Fargate), Docker, Azure Pipelines, Git

Architectures & Platforms: Microservices, IoT Integration, Chirpstack

Developer Tools: VS Code, Visual Studio