

# CHRIS KOAY

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## SUMMARY

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I am a software engineer focused on building full-stack applications using the latest technologies, such as **Next.js, Typescript, C#, Node.js, PHP, Python, Drupal and Framer Motion**. I hold **two AWS certificates**.

## WORK EXPERIENCE

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**Full Stack Developer** | Working Mouse, Brisbane, Australia

**Nov 2024 - present**

**Tech Stack:** Typescript, C#.NET, Docker, AWS, GitLab.

- Worked on Property Acquisition and Disposal Record website for the Department of Transport and Main Roads (TMR).
- In charge of building the frontend and backend for the website.
- Worked on PDF, word and excel file report generation using Gembox.
- Deployment of the website to AWS ECS Fargate and setting up CI/CD on GitLab.
- Mastered the concept of platform engineering and model-driven engineering.

**Web Development Officer (Contract)** | State Library of Queensland, Brisbane, Australia

**Apr 2024 - Oct 2024**

**Tech Stack:** Next.js, Typescript, Tailwind, MUI, PHP, GraphQL, Drupal, MariaDB, Solr, Docker, Lando, GitLab, Jira.

- Built the frontend and backend of the Queensland Colonial Secretary Website using Next.js and PHP.
- Maintained and fixed bugs for Queensland Government websites.
- Speed up search queries, create faceted search, pagination, sort query results and filter query results using Apache Solr.
- Built backend API endpoints using PHP.
- Configured Drupal pages and created/edited site content using Drupal.
- Wrote a data migration script to migrate and reformat data using Drupal migrate API.

**Software Engineer Intern** | Sindy Labs, Melbourne, Australia

**Jan 2024 – Mar 2024**

**Tech Stack:** Next.js, Typescript, Tailwind, Python Fast API, Shadcn, PostgreSQL, Docker, AWS ECS, GitHub, Notion.

- Contributed to building a full-stack application that uses AI to help students master a subject.
- Built a Retrieval-Augmented Generation (RAG) Chatbot using LangChain.
- Deployed multiple docker containers application to AWS ECS and automated CI/CD workflow using GitHub Actions.
- Built Sign-in and Sign-up pages using Clerk and assign user roles (admin and normal user) to user accounts using Clerk's API.
- Created automated email templates using React Email and sent automated email using Resend.
- Built backend API endpoints for PostgreSQL CRUD operations using Python Fast API.
- Wrote end-to-end testing scripts using Playwright and Cypress and performed website load testing using Artillery.

**Frontend Web Developer Intern** | Webby Group, Kuala Lumpur, Malaysia

**Nov 2022 - Feb 2023**

**Tech Stack:** Typescript, React.js, Redux Toolkit, Material UI, MongoDB, GraphQL, Node.js, GitHub.

- Contributed to building many frontend web pages for the company and took initiatives to build the backend APIs.
- Designed and built MongoDB Database. Created GraphQL Schema to interact with MongoDB Database.
- Built backend API endpoints using Express.js and Node.js and worked on website translation using i18next module.

**Process and Equipment Engineer** | Intel Corporation, Penang, Malaysia

**Mar 2020 - Sep 2021**

- Created a Visual C#.NET software to track equipment parts changed.
- Automated equipment log file analysis using Python and sending automated reporting emails using Python.
- Coached technicians to troubleshoot and fix Intel CPU manufacturing equipment.
- Implemented product quality control and preventive measures to ensure high product reliability.

**Automation Engineer Intern** | Advanced Energy Industries, Shenzhen, China

**Nov 2018 - Jan 2019 & Nov 2017 – Jan 2018**

- Automated an arc testing process by building a machine using PLC and VB.NET, resulted in 20% reduction in cycle time.
- I built the electrical control box to store the PLC controller, circuit breaker, power supply and relays.
- I worked with a supplier to build the hardware of the machine.

## EDUCATION

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### Master of Information Technology (Specialization: Computing) The University of Melbourne

Jan 2022 - Dec 2023

**Relevant courses:** Internet Technologies, Algorithms & Complexity, Programming and Software Development, Database Systems & Information Modeling, Software Modelling & Design, Distributed Systems, Software Processes & Management, Advanced Database Systems, Software Project, Introduction to Machine Learning, AI Planning for Autonomy, Computer Vision, NLP

### Bachelor of Mechanical Engineering (Honours) Monash University

Jan 2016 - Dec 2019

**Relevant courses:** Engineering Mobile Apps, Programming for Engineers, Robotics, Final Year Project, Electrical Circuits, Electromechanics, Advanced Engineering Mathematics, Engineering Mathematics, Accounting for Managers

## PROJECTS

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### Portfolio Website - <https://chrisyeesk.com>

2024

**Tech Stack:** Next.js, Typescript, Tailwind CSS, Aceternity UI, Framer Motion and Shadcn.

- My personal portfolio. The AI assistant chatbot is built using LangChain and OpenAI api. The domain was purchased through AWS Route 53 and deployed to AWS EC2 using Nginx.

### Chris' AI Assistant - <https://chris-assistant.com>

2024

**Tech Stack:** Next.js, Typescript, Tailwind CSS, LangChain, OpenAI api and Shadcn.

- Chris' AI Assistant is an RAG AI chatbot. It allows people to ask questions about my skills, work experience and educational background. The domain was purchased through AWS Route 53 and deployed to AWS EC2 using Nginx.

### Final Year Software Project (University of Melbourne, Melbourne, Australia)

2023

**Tech Stack:** React.js, Redux Toolkit, Node.js, MongoDB, Confluence

- Designed and built a full-stack application for an Australian Basketball Team.
- Deployed the full-stack application to AWS EC2 and set up GitHub CI/CD workflow.
- Set up Firebase and MongoDB database.
- Created backend API endpoints using Node.js.
- Wrote testing scripts using React Testing Library and Jest.
- Designed website UI using Figma.

### Multiple-user Shared Whiteboard Desktop Application (University of Melbourne – Distributed Systems Subject)

2023

**Tech Stack:** Java

- Designed and built a desktop app where users can collaboratively draw, insert shapes, erase objects etc.

## CERTIFICATES

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- AWS Certified Solutions Architect – Associate (Jan'25)
- AWS Certified Developer – Associate (Mar'24)
- AWS Cloud Practitioner Essentials (Jan'24)
- Udemy - Next JS: The Complete Developer's Guide (Jan'24)
- IBM - Develop Backend App with Node.js and Express (Jan'24)
- IBM - Intro to Containers w/ Docker, Kubernetes & OpenShift (Jan'24)
- Codecademy - Learn JQuery Course (Jan'24)
- Codecademy - Learn React Testing (Jan'24)
- Codecademy - Learn React Native Course (Jan'24)
- Codecademy - Learn Intermediate PHP Course (Jan'24)
- Codecademy - Learn PHP Skill Path (Jan'24)

## RELATIONSHIP STATUS

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In a relationship

## REFERENCE

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### Mankit Au

Manager at State Library of Queensland

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**Aaron Kane**

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