

ERIC ZHU

SOFTWARE ENGINEER

EDUCATION

Bachelor of Computer Science (Artificial Intelligence), Oct 2022

University of New South Wales, Sydney

Treasurer of PCSoc, Lead Data Scientist of Redback Racing, Dev Lead at Enactus and Google Dev Student Club

CONTACT INFORMATION

0412 137 895 | [linkedin.com/ericfzhu](https://www.linkedin.com/in/ericfzhu) | ericfzhu909@gmail.com | github.com/ericfzhu | ericfzhu.com

EXPERIENCE

National Australia Bank, Sydney | Software Engineer Intern | Jan 2022 - Feb 2023

- Developed a new feature for NPP with 2 people to enable inbound PayID payments for businesses and performed handover for feature deployment into production - Spring, HashiCorp, Java
- Resolved a Confluent Kafka connector bug that resulted in a 4% drop in processed transactions due to dropped messages and a bug with a microservice to cause duplicate messages - Java, CloudWatch
- Implemented automated test scripts to enhance product quality efficiency by 8% - Python, Jenkins

University of Sydney, Sydney | Research Engineer | Nov 2021 - Apr 2022

- Implemented a machine learning model for anomaly detection in wireless sensor networks - sklearn, scipy
- Designed and coded a showcase webpage for the research project - Gatsby, Emotion, gh-pages, and Contentful

MAPFRE Insurance, Shanghai | Software Engineer Intern | Nov 2019 - Feb 2020

- Created a new app in a team of 4 to help roadside assistance drivers with 20% faster travel routing - React, Node.js

PROJECTS

NotesCast | notescast.com/

- A better way to discover insights from the best technology, wellbeing and business podcasts
- Search for content or access a shortcut in seconds with a global command palette using cmd+k
- Transcribed podcast RSS feeds using Whisper Automatic Speech Recognition model
- Extracted key insights from transcripts using GPT-3.5 Turbo with Chain of Density prompting, and embedded into sliding window chunks using ada-002 and SPLADE-V2 for dense-sparse hybrid vector search
- Agent uses a Hypothetical Document Embeddings (HyDE) inspired model to modify the user's prompt for precise zero-shot information retrieval, which is used for Retrieval Augmented Generation (RAG)

Website | github.com/ericfzhu/website | ericfzhu.com

- A "WEBSITE" - Next.js, Tailwind, Framer Motion, hosted on AWS Amplify

SKILLS

Programming languages: Python | Java | Javascript | Typescript | C | SQL

Frameworks: PyTorch | React | Next.js | Cypress | Spring | LangChain | Docker | OpenAI | OpenSearch | Firebase

Databases: PostgreSQL | Pinecone VectorDB | MySQL | Redis

CERTIFICATIONS

AWS Certified Cloud Engineer

Microsoft Certified: Azure AI Fundamentals