

ERIC ZHU

SOFTWARE ENGINEER

CONTACT INFORMATION

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EDUCATION

Bachelor of Computer Science (Artificial Intelligence) Oct 2022
University of New South Wales, Sydney
Treasurer of PCSoc, Lead Data Scientist of Redback Racing and Dev Lead at Enactus

EXPERIENCE

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

- Developed a new feature in Java and Spring for the New Payments Platform with 2 people to enable inbound PayID payments for businesses and performed handover for feature deployment into production
- Resolved a Confluent Kafka connector bug in Java that resulted in a 3% of transactions failing to process and a bug that caused duplicate messages
- Automated testing procedures using Python and Jenkins, resulting in an 8% improvement in QA efficiency

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

- Implemented the FLOSS algorithm for detecting anomalous contextual changes in streaming sensor data
- Developed a website using Gatsby, Emotion and Contentful for the showcase of research results

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

- Created a new app using React and Node.js in a team of 4 that resulted in a 18% reduction in incident to response time due to an improved UX and routing algorithm for drivers

PROJECTS

NotesCast | notescast.com Jul 2023 - Present

- A product that automatically creates summaries for podcast episodes, which powers a knowledge retrieval engine
- Create transcripts of podcasts from RSS feeds using an Automatic Speed Recognition model
- Extract key insights using gpt-3.5-turbo-1106 and mixtral-8x7b-instruct with chain of density prompting and embedded with sliding window chunks using text-embedding-ada-002 and splade-cocondenser for hybrid vector search
- Alexandria uses hypothetical query embeddings to modify the user's query, which is used for dot product similarity search for Retrieval Augmented Generation with gpt-4-1106-preview

Website | ericfzhu.com | library.ericfzhu.com | github.com/ericfzhu/website Sep 2023 - Present

- A creative endeavor and exploration of the mind - Next.js, Tailwind, Framer Motion, and p5.js

SKILLS

Programming languages: Python | Java | Javascript | Typescript | C | SQL | React Native
Frameworks: PyTorch | Tensorflow | React | Next.js | Cypress | Spring | LangChain | Docker
Cloud: AWS Amplify | API Gateway | Lambda | ECR | S3 | Google Cloud Run
Databases: PostgreSQL | Pinecone VectorDB | MySQL | RedisDB | MongoDB NoSQL

CERTIFICATIONS

AWS Certified Cloud Practitioner, Microsoft Certified: Azure AI Fundamentals