Huan Zhang

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WORK EXPERIENCE

Software Developer(Senior Consultant) May 2025 — Current
Capgemini *Singapore*

- Worked as a Software Engineer in Crédit Agricole CIB (CACIB). Designed and developed data ingestion probes to capture upstream trade records in accordance with regulatory specifications, publishing real-time messages to downstream **Kafka** topics for post-trade reporting.

- Leveraged **Argo CD** to automate deployments and enforce a DevOps-driven CI/CD pipeline.

Software Developer Jul 2021 — Apr 2025
Works Applications *Singapore*

- Built the **DynamoDB**-based search architecture for a business document management system serving over 200 large enterprises. Integrated **Elasticsearch** with adaptive indexing and aggregation strategies, achieving a 40% reduction in search and API response time.

- Designed an **Elasticsearch** migration flow with parallel scanning and bulk requests, optimizing the RateLimiter based on key metrics monitored through **CloudWatch**, achieving 60% reduction in data migration time.

- Created manual webpages for several products with a chatbot using **Azure AI Search**, achieving 60% reduction in maintenance hours and 70% accuracy rate in responding to customer inquiries.

- Developed the hybrid backend architecture utilizing AWS **API Gateway** and **Lambda** for efficient **RESTful APIs** management, enabling robust on-premise data synchronization and processing. Integrated with **Amazon SQS** to orchestrate asynchronous data workflows.

- Designed a difference table strategy using **PostgreSQL** for efficient on-premises data synchronization batch job, reducing synchronization times by over 65% in our data integration **ETL** product.

- Automated deployment pipelines using Groovy-scripted **Jenkins**. Developed the UI of the document search page, creating multiple reusable **React** components adopted across various projects using **JavaScript**.

Research Assistant Aug 2018 — Dec 2019
The Hong Kong University of Science and Technology *Hong Kong*

- Researched and developed the model construction and transformation in a 3D garment fitting system, enhancing the garment sizing guide accuracy by 20% on a large e-commerce platform.

SKILLS/CERTIFICATIONS

Programming Languages	**Java (Proficient)**, **JavaScript**, **Python**
Technologies	**Elasticsearch**, **Spring Boot**, **AWS**, **SQL**, **Git**, **JUnit**, **Redux**, **Agile (Kanban)**
Certifications	**AWS Certified Developer – Associate**
	AWS Certified Solution Architect – Associate

EDUCATION

Nanyang Technological University 2020 — 2021

- Master of Science in Artificial Intelligence

The Hong Kong University of Science and Technology 2017 — 2018

- Master of Science in Mechanical Engineering

Nanjing University of Aeronautics and Astronautics 2013 — 2017

- Bachelor of Engineering in Mechanical Engineering