

Bing Yu Yap

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EDUCATION

SINGAPORE MANAGEMENT UNIVERSITY

B(Sc) COMPUTER SCIENCE

Expected May 2023

Cum. GPA: 4.0+ / 4.0

SKILLS

PROGRAMMING

Java • Ruby • C# • Python

SQL • Rust • C • TypeScript

FRAMEWORKS/TOOLS

Spring Boot • Rails • .NET

GraphQL • RabbitMQ

COURSEWORK

- Collaborative Software Development
- IT Solution Architecture
- Database Systems
- Statistical Thinking for Data Science
- Interactive Design and Prototyping
- Computer Networks

TEACHING

- Programming Fundamentals I
- Object Oriented Programming

ACTIVITIES

BUSINESS INTELLIGENCE & ANALYTICS

Organizing certification programmes / workshops for Senior Data Associates and mentoring Data Associates on machine learning topics.

CODEIT BOOTCAMP

Collaborating with SADeaf to teach programming to the the hard-of hearing.

STUDENT LEADER

At Prinsep Street Residences to organize residence-wide events.

TUTOR AT VOLTA

Tutoring O-level and A-level students to promote studying hard while enjoying gaming with E-Sports Entertainment Asia.

INTERESTS

Fingerstyle Guitar • Reading • Lifting

EXPERIENCE

SOLANA.FM BACKEND ENGINEER INTERN

July 2021 – Present

- Designed a hosted service in .NET to publish messages to **RabbitMQ**.
- Further optimized the hosted service's efficiency by **3,000 slots/min**.
- Optimized Indexer to improve the indexer efficiency by upgrading from Diesel to pure **Rust** and **Tokio-postgres**.
- Wrote **unit testing** for **GraphQL** layer to ensure type safety at runtime.
- Utilized: .NET Framework • Rust • RabbitMQ • Node.js • TypeScript

AFTERCLASS LEAD BACKEND ENGINEER

Feb 2021 – July 2021

- Designed and built the web app from the ground up, including designing the **PostgreSQL** database.
- Devised an in-house server-less **authentication module** using **JWT**.
- Built the course and professor review feature whose launch garnered an additional **2,000+ users** and **5,000+ reviews** in the span of **2 weeks**.
- Utilized: Ruby on Rails • GraphQL • Python • Pandas

PROJECTS

PROGRAMMING LANGUAGE CLASSIFIER DATA ASSOCIATE

Dec 2020 – April 2021

- Implemented **RandomForest** and **CatBoost** for the programming language detector. Implemented **deep learning neural network - LSTM** and **RNN** as an alternative model. Achieved an accuracy of **0.97** and **0.984** respectively.
- Deployed a **dockerized Streamlit** application that allows user to input code for language detection on **AWS EC2**.
- Utilized: Python • Tensorflow • Keras • scikit-learn • AWS EC2

TUMPANG BACKEND ENGINEER

Aug 2021 – Aug 2021

- Tumpang is a delivery app to hitch on deliveries to minimize carbon emission.
- Designed hitch recommendation based on distance and carbon emission.
- Designed the architecture of 3 micro-services in **Ruby on Rails**, **dockerized** and hosted on **Amazon ECR** and deployed on **AWS EC2**.
- Chosen as **top 5 finalist** for AWS ASEAN BuildOn 2021 Hackathon.
- Utilized: AWS ECR • AWS EC2 • AWS RDS • AWS Lambda • AWS S3

SHOPIN BACKEND ENGINEER

Aug 2021 – Aug 2021

- ShopIn is a automated insurance and investment service linked to cash-backs gained via purchasing products on e-commerce websites.
- Designed and implemented the pipeline to convert the cash-backs into purchasing insurance and funds using **AWS Step Function** and **Lambda**.
- Utilized: AWS QLDB • AWS Step Function • AWS Lambda

ACHIEVEMENTS

2021		SMU CS Dean's List AY 2020/21
2021	93/100	Oracle Certified Foundations Associate, Java
2021	85/100	Tableau Desktop Specialist Certificate
2020		Hiew Yoon Khong and Lee Su Chin Scholarship
2016		SCCCI-RI School-based Full Scholarship