

Bing Yu Yap

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EDUCATION

SINGAPORE MANAGEMENT UNIVERSITY

B(Sc) COMPUTER SCIENCE

School of Computing and Information Systems
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 and workshops for Senior Data Associates. Mentoring on machine learning topics. Built Programming Language Classifier as Data Associate Programme Project,

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