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

Experienced:

Java	Python	C
Rails	Spring Boot	.NET
Tableau	MatPlotLib	Seaborn
Numpy	Pandas	Scikit-learn
MySQL	PostgreSQL	

Familiar

C#	Rust	TypeScript
GraphQL	Git	Figma
Tensorflow	Keras	RabbitMQ

COURSEWORK

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

CLUBS AND SOCIETIES

- **Talent and Growth Director**, SMU Business Intelligence and Analytics (BIA)
- **Senior Data Associate**, SMU BIA Data Associate Programme
- SMU WhiteHats   • SMU BioMetrics

TEACHING

Teaching Assistant:
- **2021** Programming Fundamentals I
- **2021** CodeIt BootCamp - programming boot camp for the deaf students

ACHIEVEMENTS

Certification:
- **2021** Oracle Certified Foundations Associate, Java
- **2021** Tableau Desktop Specialist Certificate
- **2020** Goethe Institut A1 Zertifikat

Scholarship:
- **2020-2024** Hiew Yoon Khong and Lee Su Chin Scholarship
- **2016-2019** SCCCI-RI School-based Full Scholarship

EXPERIENCE

SOLANA.FM Backend Engineer Intern
July 2021 – Present
- Solana.FM is the first indexer service on the Solana blockchain.
- 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.
- Tech Stack used: .NET Framework • Rust • RabbitMQ • Node.js • TypeScript

AFTERCLASS Lead Backend Engineer
Feb 2021 – July 2021
- AfterClass.io is a web app used by students to review courses and professors in Singapore universities.
- 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** without relying on external services.
- 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**.
- Tech Stack used: Ruby on Rails • GraphQL • Python • Pandas

PROJECTS

SMU BIA DATA ASSOCIATE PROGRAMME Data Associate
Dec 2020 – April 2021
- Got chosen as one of the **35 Data Associates out of 135 participants.**
- Fetched and cleaned training data using **BeautifulSoup** and **Python**.
- 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**.
- Tech Stack used: Python • Tensorflow • Keras • scikit-learn • Amazon EC2

AWS ASEAN BUILDON, 2021 Backend Engineer
Aug 2021 – Aug 2021
- Tumpang, featuring a web app and mobile app, gamifies delivery service by allowing users to hitch on each other's delivery to minimize carbon emission.
- Built 3 micro-services in **Ruby on Rails**, **dockerized** and hosted on **Amazon Elastic Container Registry** and deployed on **AWS Elastic Compute Cloud**.
- Tech Stack used: Ruby on Rails • Docker • PostgresQL • AWS Cognito Amazon ECR • Amazon EC2 • Amazon RDS • Amazon Lambda • Amazon S3

TALKS AND WORKSHOPS

SMU BIA TALENT AND GROWTH Talent and Growth Director
Apr 2021 – Present
- Organized a 5-week programme to facilitate the polishing and **deployment of the machine learning / deep learning models** built in 6th Data Associate Programme.
- Planned and conducted a workshop on **StreamLit deployment** for Machine Learning models using **AWS EC2** and **AWS Lambda**.