

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

Academic:

- **2021** SMU CS Dean's List

Certification:

- **2021** Oracle Certified Foundations Associate, Java
- **2021** Tableau Desktop Specialist Certificate

Scholarship:

- **2020-2024** Hiew Yoon Khong and Lee Su Chin Scholarship
- **2016-2019** SCCCRI-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**.