

Advay Pal

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EDUCATION

NATIONAL UNIVERSITY OF SINGAPORE

BComp in Computer Science

Grad. May 2019 | Singapore

Cum. GPA: 4.7/5.0

University Scholars Programme

LINKS

Github:// [advaypal](#)

LinkedIn:// [advay-pal](#)

Facebook:// [advay.pal](#)

Twitter:// [advaypal](#)

TEACHING

Data Structures and Algorithms:

Spring '19, Fall '18, Fall '17,
Spring '17

Programming Methodology:

Fall '16

COURSEWORK

AI Planning and Decision Making

Machine Learning

Distributed Systems

Combinatorial and Graph Algorithms

Operating Systems

Information Retrieval

Computer Networks

Principles of Economics

Philosophy

SKILLS

Experienced

• Python • JavaScript • Java

Familiar

• C++ • OCaml • Scala • Swift

• C • Ruby

ACTIVITIES

NUS Hackers: **President** (17/18)

Inter College Games: **Soccer**

NUS USP **Peer Mentor**

EXPERIENCE

ZILLIQA | SOFTWARE ENGINEERING INTERN

June 2019 - Aug 2019 | Singapore

- Worked at Zilliqa, a **startup** that applies **sharding** to build **scalable** Blockchains.
- Reduced the **inter-process communication** overheads between the Smart Contract Interpreter and the Blockchain from **linear** to **constant**.
- Built a **dApp** on Zilliqa's platform to promote a marketing campaign.

APPLE | SOFTWARE ENGINEERING INTERN

May 2018 - Jul 2018 | San Francisco Bay Area

- Worked on **Machine Learning Infrastructure** for Siri.
- Designed, architected, and implemented a **search indexing** tool to efficiently query Siri's **ontology**.
- Was **selected** to present project to the **head** of Siri (Apple **VP**).

TWITTER | SOFTWARE ENGINEERING INTERN

Feb 2018 - Apr 2018 | San Francisco Bay Area

- Worked on **Applied Machine Learning** for the Twitter **home timeline**.
- Used **Deep Neural Networks** to predict user engagement on videos. Performed data analysis, feature engineering, and model training.
- Launched **experiments** to evaluate the effects of models on **production traffic**.

TWITTER | SOFTWARE ENGINEERING INTERN

May 2017 - Aug 2017 | San Francisco Bay Area

- Worked on **Twitter Lite**, a **Progressive Web App** with over **6 million** daily users.
- Built Twitter Lite's **live video** experience, and integrated the Chrome **credentials management** API into the app.

XFERS | SOFTWARE ENGINEERING INTERN

May 2016 - Jul 2016 | Singapore

- Worked as a **full stack** engineer at Xfers, a **YCombinator** Summer 2015 **startup**.
- Built a **system** to streamline Xfers' KYC onboarding process, and an internal **analytics dashboard**.

RESEARCH

FEDERATED LEARNING | NATIONAL UNIVERSITY OF SINGAPORE

Aug 2018 - Apr 2019 | Final Year Dissertation

- Worked on devising robust algorithms to deal with **adversarial client nodes** in Federated Learning. Used **TensorFlow** to implement all approaches.

AUTOMATIC HYPERPARAMETER TUNING | NATIONAL UNIVERSITY OF SINGAPORE

Jan 2017 - Dec 2017 | Undergraduate Research Opportunities Program

- Explored using and combining **Bayesian Optimisation** and **gradient based methods** for hyperparameter tuning. Used **PyTorch** to implement all approaches.

ACHIEVEMENTS

2019 **Gold Medal** for **outstanding all-round achievement** in graduating CS class

2019 **Silver Medal**, NUS Inter College Games, Soccer

2018 **Excellence in Teaching** award for work as an Undergraduate Teaching Assistant

2017 PwC Prize for the **Most Outstanding Second Year** CS Student