

HONGYU, TENG




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Education

Imperial College London

2019 – 2023

Mathematics and Computer Science (MEng)

- Courses : covering numerical methods, graphics, computer vision, machine learning, concurrency, machine learning, compiler, OS, and software engineering practices.
- Teaching Assistant for first year students' lab sessions  (Haskell, Java, Kotlin, C) in Year 2
- Group Project: Image Processing Engine with GUI (IPEwG) 
- Individual Project: Differentiable Rendering using JAX for Differentiable Physical Simulation Brax and Next Generation Reinforcement Learning Framework CORAL

Experiences

Consumer Health Research and Technology, Google

Software Engineering Intern

London, United Kingdom, May 2022 – Sep 2022

- Under the guidance of host, learning native Android development using Kotlin, building a fully working Wear OS app on my own, with collaboration with UI/UX colleague and domain expert.
- Involving in-device sensor data collection, scheduled and on-demand computation, persistent data storage, a background service (with ongoing notification + activity) for consistent data collection. A digital watch face is also implemented, that would respond to changes of collected and computed data. This is deployed in both Wear OS 2.x and Wear OS 3.
- Deployed internally with evaluation of the app's effectiveness of achieving goals

Octaface — From Acquaintances to Friends

Co-founder, Tech Team Lead, Full-Stack Developer

Nanjing, China, Jul 2020 – Dec 2021

- Lead tech team to cooperate with design team to implement an iOS/Android app (Flutter), necessary backend (Flask + MongoDB), and integrate 3rd-party services (Image, Push, SMS)
- Developed instant messaging service from scratch, supports direct and group messaging with advanced privilege management; help refactor information flow section and contacts system
- Having 50+ beta users for a year, handling hundreds of messages in 20+ groups per day

Deeplang: A Programming Language for IoT Device

Low-Level Developer

China, Sep 2020 – Jan 2021

- Develop the memory management module for the backend virtual machine in C.

Algorithm Selection for Classification Problems via Cluster-based Meta-features

First Author


Singapore, Jun 2016 – Nov 2018

- A step towards automatic machine learning (AutoML) by proposing new meta-features
- Published in 2018 IEEE International Conference on Big Data (Big Data)

Silver Award / National Olympiad in Informatics, Singapore

Mar 2017, 2018

Skills Summary

- Video enhancement, processing and encoding skills using VapourSynth + x265 pipeline .
- Passion and experience in rendering, photography and optimising existing solutions.
- Frequently used: C, C++, Python, Flutter, Kotlin, JAX; SocketIO, Haskell, Java, Golang, Git
- Occasionally used: C#, Flask, SQLite, Unity, Elixir, Lean; Celery, MongoDB, TornadoFX

References Available on Request