Tomy Hsieh

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Education

National Chung Hsing University
Sep. 2019 - Jun. 2022

Bachelor of Computer Science; Transfer Student
Taichung, TW

- Major GPA: 3.23/4.0
- Winning 2nd place among 10+ teams on the final contest of Information Retrieval on implementing an Open-domain Question Answering bot
- Graded 1st place among 10+ teams on the final project of predicting hotel booking demand using various regression and classifying analysis
- Ranked overall 3rd place out of 90 on 8 coding assignments of Algorithm

École centrale d'électronique
Jan. 2022 - Apr. 2022

Exchange Student
Paris, FR

- NCHU School representative for exchange to ECE Paris in Spring 2022 Semester
- Taking courses in Machine Learning, Cybersecurity, and Management of Information Systems
- Participating in the ECE Paris International activities

Yuan-Ze University
Sep. 2017 - Jan. 2019

Completed Freshman & Sophomore Year Coursework
Taoyuan, TW

- Major GPA: 3.44/4.0
- Rank national top 2% among other 2000+ competitors at winter round of Collegiate Programming Examination (CPE) in 2018
- Achieved overall 1st place out of 40 on coding exam of Data Structure
- School representative of ICPC Asia Taipei Regional Contestant in 2018
- School representative of Soochow University delegation member in 2018

Experiences

Software Engineer Internship
Jul. 2021 - Dec. 2021

Intel Corporation, Client Computing Group, Chrome Team
Taipei, TW

- Debug Agile System
  - Developing and maintaining the Django Full-stack website for test report visualization
  - Database normalization and migration from SQLite to MySQL
  - Integrate with JIRA issue tracker for automating alarm and report
  - Major UI redesign and rewrite, which receive over 85% of user satisfaction rate
  - Componentlize the core module for system extensibility to a different department

- Machine Learning Engineering for Canary Project
  - Independently research and develop time series machine learning models for different user scenarios.
  - Regularize and optimize data pipeline from data collecting to model training to improve model accuracy.
  - Deploy machine learning models on a unified platform as RESTful API with FastAPI

Research Assistant **Jul. 2020 - Dec. 2021**

Natural Language Processing Lab, NCHU *Taichung, TW*

- Conducting my independent research: Complex Question Generation Based on BART
- Designing and maintaining a secure, scalable ML experiment runtime environment across 20+ on-premise server
- Minimize lab website size and boost loading performance over 90% by optimizing webpack config and improving deployment
- Lead a team on building ML model demonstration website boilerplate for the lab with cookiecutter
- Developing and maintaining the NLP Lab API, the unified platform for NLP research and demonstration for the lab
- Developing and maintaining a Question Generation Platform, Querator AI, backed by the NLP Lab API

Leadership, Student Group

- As Event General Coordinator of Pop Music Club, leading a team of 5 conducting a joint public presentation with 3 other clubs, attracting 1000+ audience (2016)
- As both Chief Director of event planning and full-stack engineer, conducting the annual College of Informatics Orientation Camp with over 300+ attendances (2018)
- As CFO of Student Association of CSE Departments, pushing affair of financial transparency, publishing monthly financial statements during the term of office (2018)
- Equipment section, and executive consultant of Drama Club (2020)

Languages, Certificates, Awards, Bug Reports

- Chinese (Native)
- English (TOEFL: 88, 2020)
- Google - Fundamentals of Digital Marketing (2018)
- Coursera - Introduction to Cloud Identity (2020)
- Coursera - Google Cloud Platform Big Data and Machine Learning Fundamentals (2021)
- Coursera - Modernizing Data Lakes and Data Warehouses with GCP (2021)
- Special Award, 2020 LegalTech Hackathon: *Search Algorithm for Knowledge Graphed Verdict*
- Honorable Mention of Departmental Capstone Project Contest among 40+ contestants: *Question Generation Quality Enhancement based on BART* (2021)
- HITCON ZeroDay

Programming languages, skills, and stacks

- Main focus: Python (Expert)
  - Web Scraping: Requests, BeautifulSoup, Scrapy
  - Backend Programming: Flask, Django, FastAPI
  - Machine Learning: PyTorch, PyTorch Lightning
  - Natural Language Processing: HuggingFace Transformers
- Proficient level
  - Data structure, Algorithm: C, C++, Java
  - Frontend Programming: TypeScript, React
  - Automation, Scripting: Shell/Bash
  - Unix system operation: Ubuntu, Debian
- Novice level
  - Frontend Programming: Vue
  - Backend Programming: PHP (Laravel), Go
  - iOS App: Swift

Toolchains

- Development: Git, Git Flow, CI, Agile Development
- Cloud Computing Platform: Google Cloud, AWS
- PaaS: Heroku, Vercel, Netlify
- Web Server: Apache, Nginx
- Database & Memcache: MySQL, Postgres, MongoDB, Redis, RabbitMQ
- Distributed Computing: Hadoop, Spark
- DevOps: Docker, Ansible

Projects

- <u>Cafe Crawler</u>: Use Python to crawl coffee chains address and export .kml for Google My Maps (2016)
- <u>YZU Portal SDK</u>: Python module for accessing Yuan-Ze University Student Portal System (2017)
- <u>Monopoly</u>: Monopoly game written in pure JavaScript (2017)
- <u>Hello Tainan</u>: Database-less web application to query bus route with in-time arrival information (2018)
- <u>YZU CI Camp Website</u> + <u>Sen-Tree-Pay</u>: Camp website and point system built with Laravel and hosted on Google Cloud Platform (2018)
- <u>Tubee</u>: A YouTube channel subscribing tool built with Flask, PostgreSQL, Celery (2018~)
- <u>Coinc</u>: Fiat and cryptocurrency conversion workflow for Alfred (2019)
- <u>StupidQA</u>: Entry-level multiple-choice QA bot with Wikipedia corpus and TF-IDF (2020)
- <u>Querator AI</u>: Web client for context-answer-based Question Generation with BERT (2020~)
- <u>Simple FTP</u>: Simple implementation of FTP Server-Client (2020)
- <u>Library Flow</u>: Crowd visualization and trend prediction based on Bluetooth signal (2021)

Community Participation

- Selected trainee of NTU Sprout program on Python Programming (2017)
- Attendee of 2018 XR Hack Fest
- Attendee of PyCon Taiwan (2018, 2020)
- Diversity-sponsored attendee, and volunteer of event staff/session chair of PyCon DE (2022)
- Diversity-sponsored attendee of EuroPython (2022)
- Attendee of Mobile Open Platform Conference (2018, 2020)
- Attendee of Students' Information Technology Conference (2020, 2021)
- Attendee of Conference for Open Source Coders, Users and Promoters (2020)
- Attendee of Hacks In Taiwan Conference (2020)
- Selected trainee of Advanced Information Security Summer School (AIS3) (2020)