Brian Ying-Chi Chen

603 E Huron St, Ann Arbor, MI 48104 **|** (734)6048505 **|** brianc.boston@gmail.com **|** English, Chinese
https://www.linkedin.com/in/brian-chen-1267b6220/ **|** https://github.com/BrianChen0527

WORK EXPERIENCE

SOFTWARE DEVELOPMENT ENGINEER INTERN
Amazon, Irvine, CA | 2023/05 – 2023/07
- While onboarding, fixed original integration tests for a C++ SDK under development by the Alexa team and tracked down 10+ memory management bugs in the core codebase that lead to faulty or undefined behavior.
- Developed an entire metric collection plugin module and integrated it into the C++ SDK with Cmake.
- Interacted with Alexa Voice Service (AVS) API to collect metrics such as user perceived latency, AVS response duration, code-based linking (CBL) authentication, and flushed metrics in JSON format via http requests.
- Deployed a web service with Python Flask on Amazon EC2 that serves as a TCP server for receiving metric data.
- Modified the UI design of the application to allow users to opt out of metric collection.
- Implemented a test suite using the C++ Doctest framework with more than 95% code coverage and runs as part of a Jenkins continuous integration continuous deployment pipeline for the metrics module.

SOFTWARE DEVELOPMENT ENGINEER INTERN
ASUS Intelligent Cloud Services, Taipei, Taiwan | 2022/05 – 2022/08
- Underwent training in different Azure services, Azure pipeline, Docker, Kubernetes, and Helm.
- Developed Python web applications with Django and deployed on Azure App service.
- Containerized applications with Docker, implemented continuous integration and deployment with Azure Pipelines, and improved code quality with Sonar Cloud.
- Stored API requests in Azure SQL database, optimized data retrieval performance with Redis Cache, and implemented security measures by storing and accessing database passwords as secrets on Azure Key Vault.
- Manipulated PostgreSQL databases with SQL and Python scripts using the psycopg2 and SQLAlchemy libraries.

SOFTWARE ENGINEER INTERN
Lenovo, Taipei, Taiwan | 2021/06 – 2021/08
- Received comprehensive training in NumPy, PyTorch, OpenCV, and other Python ML-related frameworks.
- Fine-tuned deep convolutional neural networks to create image classification models with the CIFAR-10 and CIFAR-100 datasets as part of the Lenovo University Talent Research Program.
- Created real-time object identification programs with pre-trained models (VGG16) and OpenCV.
- Wrote optimized python scripts to organize and filter data from excel files.

E-COMMERCE SOFTWARE DEVELOPMENT INTERN
Parfums Christian Dior, Taipei, Taiwan | 2020/06 – 2020/08
- Implemented dynamic front-end web interfaces such as animated dropdown-menus, responsive images, and animated text using React, JavaScript, HTML, and CSS under the guidance of a mentor.
- Implemented responsive web design features to maintain the aesthetics of web pages on mobile devices.
- Tested website functionality (buttons, links, forms, etc.), tracked down translation errors, and checked for back-end database failures by passing in sample membership information and purchase orders.

Education

UNIVERSITY OF MICHIGAN, ANN ARBOR
B.S.E. in Computer Science   Expected April 2024
Engineering Honors GPA 3.8/4.0
Michigan Mars Rover - Computer Vision Team   2021 – present

Skills

Programming: Python, Python ML Frameworks, C++, C, Java, HTML & CSS, JavaScript, SQL, Git
Software / Tools: Docker, Kubernetes, Microsoft Azure, Amazon Web Services, Jupyter Notebook, PostgreSQL