

DAVID HUANG

EDUCATION

Western Governors University

Bachelor of Science – Computer Science – December 2023

Certifications – CompTIA Project+, ITIL 4

PROJECTS

Image Classifier – Python

- Developed a Python web app using the PyTorch machine learning framework that trains a convolutional neural network (CNN) to identify images
- Utilized torchvision to transform images in the CIFAR-10 dataset for training the EfficientNet-B0 CNN
- Used Matplotlib, NumPy, and TorchMetrics to produce learning curves, confusion matrix, and image results

Scheduling Application – Java, FXML, SQL

- Developed a Java application using JavaFX that manages appointments, customers, and generates reports
- Performed CRUD operations on a MySQL database with the Java Database Connectivity API
- Used Scene Builder to create a user-friendly interface that displays data dependent on the user's location

Postal Routing Application – Python

- Developed a Python program that simulates on-time delivery of mail packages with tracking features
- Implemented the nearest neighbor algorithm to heuristically generate efficient routes for mail trucks
- Created a hash map from scratch to learn about dictionaries and hash functions

See Additional Projects at davidhuang.dev

EXPERIENCE

General Manager/Owner

CPR Cell Phone Repair Mt Juliet

Nov 2017 – Nov 2022

- Managed all store operations including shift scheduling, employee training, and inventory management
- Created a positive work environment for a team of technicians to efficiently handle repair workload resulting in a sub 1 hour turnaround time for almost all repairs
- Maintained a 4.8 Google Maps rating with over 500 reviews by providing excellent customer service
- Negotiated B2B sales with Smith County Board of Education leading to hundreds of additional Chromebook computer and iPad tablet repairs
- WISE Level 2 technician – resolved thousands of issues with smartphones, tablets, computers, and drones
- Performed surface mount and through-hole micro soldering of IC chips and PCB connectors

Research Intern

Office of Institutional Research, Meharry Medical College

May 2016 – May 2017

- Learned R to conduct propensity score matching using the MatchIt package to identify obesity risk factors
- Edited and proofread "Using Propensity Score Matching Method to Study Adult Obesity in the United States," APHA 2016 Annual Meeting & Expo, 2016
- Explored Rasch analysis utilizing Winsteps and Facets to improve the precision of student survey questions

Technology Consultant

GuruSkins

Aug 2015 – May 2016

- Addressed business needs with technical solutions at a Boyd Venture Challenge winning startup
- Implemented a solution to fully automate processing of customer uploaded artwork for large format vinyl printing using Adobe Photoshop and ExtendScript Toolkit
- Built a Windows server to manage digital assets with a file structure for efficient data storage and retrieval

Intern

Institute for Software Integrated Systems, Vanderbilt University

May 2014 – Aug 2014

- Designed and built a bike computer following the modular design principle of Google Project ARA
- Exercised Kanban time management to complete a major project and prepare a presentation for Google and city officials in a two-month timeframe
- Learned Python to implement a cyber-physical system using various sensors, Arduino, and Raspberry Pi

SKILLS & TOOLS

Languages – Python, Java, C++, SQL, FXML, AIML, HTML, CSS, JavaScript, ExtendScript

Database and Tools – MySQL, PostgreSQL, MySQL Workbench, pgAdmin, PyTorch, Scene Builder, MatchIt, RepairQ