

Tom Nguyen

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Summary

Experienced web developer with over 1,000 hours of hands-on experience with coding. Demonstrated skills in Django, MEAN, and Java Spring Framework. Skilled in HTML/DOM, CSS, Java, Python, JavaScript. Passionate in Machine Learning and AI. Strong computer science background, graduated from California State University Los Angeles.

Technical Skills

- Developer Tools: IDE VS Code, Spring Tools, Terminal / Git Bash, My SQL Workbench, AWS EC2, Git/GitHub
- Languages: JavaScript, Python, HTML, CSS, Java
- Frameworks: Flask, Django, MEAN, Spring Boot, Angular2, Bootstrap, Express.js
- Servers: Node.js
- Database: MySQL, MongoDB, Sqlite, SQL

Technical Projects

AI Flappy Bird | Coding Dojo, Burbank | Los Angeles, CA

November 2019

- Rewrote of the popular mobile game "Flappy Bird" and used machine learning to have the game operate autonomously in 1 week
- Explored and implemented a simple version of Neural Network that make a copy and mutate the version of the bird.
- Implemented game logic using the idea of Reinforcement Learning that utilizes the Genetic Algorithm to train the bird's decision which is jump or not jump based on the reward after each generation.
- Implement the repopulate function to mutate the good value birds from the previous generation to increase the probability to be a better bird.
- **Tools used: HTML Canvas, Python, Reinforcement Learning, Neural Network, Genetic Algorithms**

School Library Platform | Coding Dojo, Burbank | Los Angeles, CA

October 2019

- Implemented and Developed a school library platform using Django Framework in 1 week.
- Created a user-friendly prototype library website for users can go and browse for books.
- Implement registration, log-in and validation function in Django backend for students to register or login.
- Developed the connection between backend and front-end using Jinja, a template engine for Python.
- **Tools used: HTML/CSS, Python, Django, Jinja, Bootstrap, SQLite, Mongoose, AWS**

Sidewalk Slope Detection (SSD) | California State University | Los Angeles, CA

2018-2019

Sponsor: The City of Los Angeles, Bureau of Engineering

- Mentored and solved a big problem on the sidewalk for the City of Los Angeles in 4 weeks.
- Designed and implemented a productivity tool for Raspberry Pi using Python script in 22 weeks.
- Implemented automated image record using the OpenCV module with a timestamp included.
- Determined the slope of the sidewalk by measuring the angular rate in Micro-Electro-Mechanical System (MEMS) Gyroscope.
- Collaborated with the team to implement and design a clickable graph from data collected and display with images at each timestamp on a website using RESTful API.
- Established a research paper for case study: Environmental Safety Monitoring System for Sidewalk.
- **Tools used: Python, OpenCV, Raspberry PI, HTML/CSS, Bootstrap, JavaScript, RESTful API**

Professional Experience

Freelance E-Commerce Reseller | Los Angeles, CA

2017-Present

- Using scripts/bots to automate the checkout process on high-demand footwear and clothing to niche markets throughout the US.

Education

- **Coding Dojo | Full-Stack Developer Training | Burbank, CA** September 2019 – December 2019
 - Full-Stack Certificate in Django, MEAN, Java Spring Framework
 - Completed over 800 hours of web development experience over 14 weeks in a fully immersive coding environment
- **California State University | Los Angeles, CA** May 2019
 - BS in Computer Science