Jaxon Bailey

SOFTWARE ENGINEER, NYC

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SKILLS

Java	Bootstrap	English
Python	React.js	Japanese
Javascript	jQuery	Spanish
HTML/CSS	Django	
Matlab	Express/Node.js	

EDUCATION

UNIVERSITY OF PENNSYLVANIA, School of Engineering and Applied Science — *2022 – Now*
Master of Computer Science (MCIT)

UNIVERSITY OF TEXAS AT AUSTIN, Cockrell School of Engineering — *2015 – 2018*
Bachelor of Science, Mechanical Engineering

PROJECTS

Q-LEARNING AGENT, UPenn MCIT — *2023*
Designed an AI agent that learns through interactions with its environment via trial & error. Navigated a stochastic grid world, avoiding pitfalls to reach a goal terminal. The same agent also attained a near-perfect win rate in Pacman by exploiting a weighted feature function.

AI DOMINO PLAYER, UPenn MCIT — *2023*
Developed an artificially intelligent player for a one-on-one dominoes game in Python. Implemented a game tree and minimax decision rules to search for the best plays.

OBSTACLE NAVIGATION PROGRAM, UPenn MCIT — *2023*
Implemented a Python program to solve the problem of navigation on a two-dimensional grid with obstacles. Employed A* search to improve on breadth-first search.

FLU TWEET ANALYSIS, UPenn MCIT — *2023*
Designed a Java program using N-tier architecture to analyze Twitter data, look for tweets regarding occurrences of the flu, and estimate where the disease is affecting people. Used JSON.simple to read JSON data. Applied Singleton and Factory design patterns.

WAAVES, Duvauchelle Labs, University of Texas — *2018*
Co-developed a Matlab program that parses and processes audio data for animal research labs. Implemented a GUI, greatly improving ease of use and increasing program stability.

WORK

ENGLISH LANGUAGE COACH, Self-Employed, Remote — *2018 – Now*
Coached EFL learners of all ages from 30+ countries and assisted throughout life processes like job interviews, college admissions, and the cultural assimilation of immigrants to the US.

LEAD TEACHER, Human Academy, Tokyo, Japan — *2021– 2022*
Developed and taught original English immersion curriculum for a prestigious private JHS in the Tokyo area. Trained teachers and served as liaison between school and management.

RESEARCH ASSISTANT, Duvauchelle Labs, Austin, Texas — *2017 – 2021*
Co-developed an audio processing program for use in animal research labs. Automated data aggregation/file management tasks with Python, saving hundreds of work hours.