

JAXON BAILEY

SOFTWARE ENGINEER, NYC

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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

OPENAI BIOGRAPHY PARSER

- Used the OpenAI GPT-3 *Completions* API to implement a biography parser.
- Fine-tuned the LLM on a large set of JSON data, using Wikipedia biographies as input.
- Successfully parsed bios, outputting a table of information about the given person in a specified format.

PACMAN Q-LEARNING AGENT

- Designed an AI agent that learns to avoid pitfalls and reach a goal terminal in a stochastic grid world.
- Trained agent in a series of training episodes where it learns about its environment through trial & error.
- Deployed the agent in a Pacman game where it attained a 100%-win rate after just 10 training episodes.
- Exploited a weighted feature function to help the agent chase food and avoid ghosts.

AI DOMINO PLAYER

- Developed an AI player for a computer vs. human dominoes-based game.
- Employed the minimax algorithm to explore game states and choose the likeliest path to victory.
- Implemented alpha-beta pruning to explore the game tree with reduced computation time.

WAAVES, Duvauchelle Labs, University of Texas

- Co-developed a Matlab program that parses and characterizes audio data for animal research labs.
- Introduced error handling to improve program stability as well as a GUI to improve ease of use.
- Wrote Python programs to automate mundane tasks, saving hundreds of work hours for the team.
- Automated file management and data point aggregation across many terabytes of data files.

WORK

SERVER, Legacy Records, New York, New York 2023 – Now
· Served in a fast-paced, high-end American and Mediterranean restaurant in Hudson Yards.
· Maintained extensive and detailed knowledge of the food and wine menu.

LEAD TEACHER, Human Academy, Tokyo, Japan 2021– 2022
· Developed and taught English immersion curriculum for a prestigious JHS near Tokyo.
· Trained teachers and served as primary communicator between school and management.

RESEARCH ASSISTANT, Duvauchelle Labs, Austin, Texas 2017 – 2021
· Co-developed an audio processing Matlab program for use in animal research labs.
· Wrote Python functions to automate data aggregation/file management tasks.

SKILLS

Python (expert)
Java (expert)
JavaScript (proficient)

HTML/CSS (proficient)
Matlab (prior experience)

English (native)
Japanese (business fluency)