

Jonathan Huang

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Education

University of California, Irvine

June 2021

- B.S. in Computer Science, GPA: 3.84, Dean's Honor List, 10 quarters

Skills

- **Programming Languages:** Python, HTML/CSS, JavaScript, TypeScript, Java, SQL
- **Libraries/Frameworks:** Django, React, Tailwind CSS, React Query (TanStack Query)
- **Software/Technical:** Amazon AWS, Git/Github, Linux, Jupyter, Android Studio

Work Experience

Amazon Robotics - Software Engineer I

Amazon | Seattle, WA

Sept 2022 - July 2024

- Enabled OEE data in a new Amazon packing machine type to show up in OEE dashboards through cross-team collaboration, bug fixing, and experimentation, which helped unblock the machine launch
- Debugged a large-scale data reporting gap impacting customers of data from Amazon packing machines and implemented a fix in Java to onboard to an API and call it to report the required data
- Designed a CI/CD monitoring pipeline for logs and metrics emitted by Amazon packing machines and used TypeScript CDK to set up the pipeline and any permissions needed to write to accounts in it

TRACK Program - Virtual ECU Application Engineer, SOLE Team

General Motors | Milford, MI

Feb 2022 – August 2022

- Resolved a 32-bit Python interpreter's incompatibility with 64-bit DLLs by implementing a 64-bit Python server with a wrapper class for seamless DLL integration
- Gave recommendations to the team on best practices and potential improvements in Python / software engineering techniques including version control, style guidelines, and idiomatic Python
- Coordinated with Punch and Synopsys to resolve issues with the TPIM VDK and create TPIM releases usable by other teams for simulation purposes

TRACK Program - Embedded Android Software Engineer, Calibrations Team

General Motors | Warren, MI

July 2021 – Feb 2022

- Logged early calibrations for debugging purposes by overloading the stream insertion operator of a C++ data class to contain printing logic, and wrote unit tests and stub classes to easily test different inputs
- Improved performance and scalability of record metadata processing by modifying Python tooling scripts to detect similar record structures and auto-generate efficient C++ code to query those similar structures

Featured Projects

KanjiLearner - Full-Stack Web Application

July 2025 - Sept 2025

- Developed and deployed a kanji learning platform with a React (TypeScript, Vite) frontend and Django + PostgreSQL backend, hosted on Vercel and Render.
- Designed backend models and REST APIs for radicals, kanji, vocabulary, user-specific SRS progression, and dependency-based unlock logic.
- Built lesson and review workflows with accuracy tracking, SRS stage updates, and recent mistake history.
- Delivered a production-ready, customizable learning tool that lets users create their own mnemonics, showcasing full-stack deployment ownership.

Strategy Game Prototype

June 2020 – August 2020

- Designed a tool for generating levels in a tile-based strategy game and used it to test unit movement
- Developed a level creator tool in HTML, CSS, and JS that allows the user to create levels visually, export levels as JSON, and import JSON files into the tool
- Created a C# program to import JSON levels from the level creator and load them into the game model
- Coded a variant of Dijkstra's algorithm in C# to compute paths from a starting tile to all tiles within a limit

Fabflix Movie Website

May 2020 - June 2020

- Developed a movie website on the full stack that allows users to login and purchase movies
- Used HTML, CSS, JS for the frontend, an Apache backend with RESTful Java APIs, and a MySQL database
- Designed a system that allows users to search movies by certain parameters or browse by title or genre
- Deployed and tested website on an Amazon AWS instance