Nicholas Malamud

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EDUCATION

Bachelor of Science in Computer Science (3.9 GPA)   Aug. 2019 – May 2023
California State University, San Marcos   *San Marcos, CA*

EXPERIENCE

Software Developer   Dec. 2022 – Present
HOVR Labs LLC   *San Marcos, CA*
- Developing VR chemistry labs within Unity (C#) to provide students with an immersive, hands-on learning experience beyond the traditional classroom.
- Launched through NSF-funded research at CSUSM and transitioned into an independent startup.
- Using Plastic SCM for version control and Jira for task management and bug tracking.
- Documenting the code with Natural Docs, which generates a searchable, web-based documentation portal.
- Creating and modifying 3D models in Blender to produce high-quality custom assets for the application.
- Integrating Motive motion capture software into the codebase to track physical lab tools using a webcam.
- Performing routine QA testing to ensure error-free functionality and a seamless user experience.
- Working in an Agile Scrum environment, collaborating via Microsoft Teams, performing pair programming in Visual Studio, and attending weekly meetings.

AI Trainer   Dec. 2023 – Mar. 2024
Data Annotation Tech   *Remote*
- Freelance position focused on training AI chatbot models.
- Responsible for crafting coding prompts and evaluating responses against multiple criteria.
- Tasked with testing and debugging generated code against test cases.
- Working with a variety of languages including Python, HTML, CSS, JavaScript, SQL, and Java.
- Generating graphs for datasets using pandas and matplotlib.

PROJECTS

AI Number Recognizer | *Python*
- Recognizes handwritten digits using a PyTorch based machine learning neural network.
- Preprocesses images with PIL and NumPy for grayscaling, pixelating, and centering digits.
- Optimized for GPU computation to improve speed and performance.

Fast Food Ordering Application | *Java, SQL*
- Desktop food ordering application built with Swing GUI Library and an SQL database.
- Has a resizable UI to fit every monitor size and scrollable lists to adjust to changing data.
- Built into a JAR executable which can run on both Windows and Mac Operating Systems.

Bot Security Test | *Python, Unity*
- Automated testing bot for video games, built to play a color clicking game by itself.
- Uses OpenCV library for image recognition and pyautogui library to control the mouse.
- Developed an algorithm to make natural looking mouse movement.

eBook Rental Website | *HTML, CSS, PHP, SQL*
- Website where users can rent and upload eBooks.
- Session cookies track users on the server and prepared statements prevent SQL injections.
- Facilitates ecommerce based on user-generated content.

TECHNICAL SKILLS

Languages: Java, Python, C++, C, C#, SQL, JavaScript, HTML, CSS, PHP, Unix Bash

Software: Visual Studio, Eclipse, Unity, Plastic SCM, Wireshark, Android Studio, Hashcat, Blender, AWS

Libraries: OpenCV, Swing, pandas, PyTorch, PIL, NumPy, matplotlib, Tkinter