# Nicholas Malamud

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#### **EDUCATION**

## Bachelor of Science in Computer Science (3.9 GPA)

California State University, San Marcos

Aug. 2019 – May 2023 San Marcos, CA

#### EXPERIENCE

#### Software Developer

California State University, San Marcos

Dec. 2022 – Present San Marcos. CA

- Developing VR/MR chemistry labs within Unity (C#) to facilitate groundbreaking research into the benefits of virtual reality learning compared to traditional classroom methods.
- Working as a Research Assistant on this National Science Foundation sponsored project.
- Regularly testing the application to identify and correct errors and improve overall user experience.
- Employing Plastic SCM for version control and Jira for task management and bug tracking.
- Documenting classes, functions and variables in Natural Docs format.
- Creating and modifying 3D models for assets and virtual lab tools in Blender and scripting their functionality.
- Integrating Motive motion capture software into the codebase to track physical lab tools using a webcam.
- Agile Scrum work environment which involves collaborating on Microsoft Teams, participating in pair programming in Visual Studio, and attending weekly Zoom meetings.

AI Trainer

Dec. 2023 – Mar. 2024

Remote

- Freelance position focused on analyzing AI chatbot models.
- Responsible for crafting coding prompts and evaluating responses against multiple criteria.
- Tasked with testing and debugging AI-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

#### 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.

# Fast Food Ordering Application | Java, SQL

- Desktop food ordering application, using 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.

#### MySimplePlanner Application | Python

- Weekly planner application to save notes and create daily to-do lists.
- Built into an executable that features a resizable UI made with the Tkinter library
- Automatically opens to the current week and has convenient navigation and save buttons.

### TECHNICAL SKILLS

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

Developer Tools: Visual Studio, Eclipse, Unity, Plastic SCM, Wireshark, Android Studio, Hashcat, Blender

Libraries: Swing, pandas, matplotlib, OpenCV, Tkinter

# Cybersecurity Club @ CSUSM

Fall 2022 - Spring 2023

- Participated in the National Cyber League Competition.
- My team placed within the 95th percentile with 99% Accuracy.
- Challenges included cryptography, enumeration & exploitation, forensics, log analysis, network traffic analysis, open-source intelligence, password cracking, scanning & reconnaissance, and web application exploitation.
- Tasked with decrypting text, parsing data out of large log files, unhashing passwords using Hashcat, analyzing network captures in Wireshark, using Unix shell commands, decompiling code on Ghidra and exploiting vulnerabilities in websites.