ETHAN LEGUM

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EXPERIENCE

Present - Jun 2023

PopID *Computer Vision Engineer*

- Deployed new biometric recognition technology to eliminate physical contact with the terminal.
- Tested drive-thru liveness software resulting in 57% increase in successful facial matching performance.
- Built backend APIs used by partners to integrate PopID biometric payments platform into retail stores.
- Led team during 4-month Steak n' Shake pilot, increasing daily transactions from 5 to 50/day.

EDUCATION

May 2024 - Aug 2022

The University of Central Florida *M.S. in Computer Vision | GPA 3.7*

- Top Courses Advanced Computer Vision, Medical Imaging, 3D Computer Vision, Advanced AI
- Dean's List All Semesters

May 2022 - Aug 2017

The University of Central Florida *B.S. in Computer Science | GPA 3.5 | Core CS GPA 3.9*

- Top Courses AI, Robot Vision, Machine Learning, Parallel Programming, CS 1 & 2

PROJECTS

Mar 2024 - Dec 2023

Live Hand Gesture Recognition *Kotlin, Python, Chaquopy*

Designed a hand gesture recognition system for Android POS system, enhancing customer drive-thru experience with touch-free tipping.

- Engineered a robust ML pipeline to accurately classify 5 unique hand gestures, resilient to changing environmental factors.
- Integrated Python-based ML algorithms into Android application for seamless deployment to existing POS devices.

Apr 2023 - Feb 2023

LateNtMovies: Image-to-Video Synthesis *Python, Pytorch*

Developed a novel generative video model using pseudo-3D latent diffusion, to convert images into high-resolution and coherent videos.

- Combined latent diffusion with temporal convolutions, to enhance motion understanding during unsupervised training.
- Validated model effectiveness through CLIP benchmarks and human evaluations, demonstrating superior realism and fidelity.

Dec 2022 - Sep 2022

Credit Card Fraud Detection *Python*

Architected machine learning pipeline that efficiently detects fraud using real European consumer credit card data.

- Stabilized model using regularization to achieve 98% separation of fraudulent and non-fraudulent data.
- Balanced dataset of 300,000 credit card transactions by artificially creating more fraudulent data using SMOTE.

Apr 2022 - Aug 2021

EasyMeshVR *C#, Unity, NodeJS, AWS*

Created multiplayer VR application that allows users to collaboratively edit 3D models.

- Managed 5-person team in building mesh-editing, multiplayer, and web architecture to launch application in 6-month period.

LANGUAGES

Programming

Python	●●●●●
Java	●●●●◐
Html & CSS	●●●●○
C#	●●●●○
SQL	●●●◐○
JavaScript	●●◐○○

Conventional

English	●●●●●
Hebrew	●●◐○○

SKILLS

Development Experience

Leading programming teams, following Agile development principles, and public speaking.

Python

Building predictive models and neural networks for classifying large datasets.

Java

Dynamic/recursive algorithms, complex data structures, and object-oriented design.

Industry Tools

OpenCV, PyTorch, TensorFlow, Unity, MongoDB, Kotlin, Figma, NumPy, and Pandas.

LEADERSHIP

Dec 2020 - May 2019

Alpha Epsilon Pi Fraternity *Executive Board*

- Entrusted by 100-member chapter to serve on executive board, lead new members, and plan events.
- Oversaw committee that transitioned 37 new members into the fraternity over two-semester period.
- Streamlined new member program framework for successors to use in creating their own schedules.