JACOB LEONE

ARTIFICIAL INTELLIGENCE SPECIALIST

Portfolio: https://www.jacobleone.tech

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Summary

I am driven by an intrinsic passion for tackling both creative and technical challenges. As part of agile development teams, I thrive on collaborating towards our shared mission: delivering exceptional value to clients efficiently and effectively. Before diving into the tech arena, I pursued an intensive graduate program at a top-tier university, focusing on the convergence of artificial intelligence and psychology. This academic journey endowed me with a unique lens: approaching AI development from a human-centric perspective and deeply understanding the nuanced ways people interact with technology. Beyond my academic pursuits, I am a perpetual learner, drawing from experiences that span leadership, creativity, problem-solving, and shepherding projects from mere ideas to successful execution.

Education

Master of Science in Artificial Intelligence

Florida Atlantic University, Boca Raton, FL. Graduation date: December 2023

Bachelor of Arts in Psychology

Florida Atlantic University, Boca Raton, FL. Graduation date: May 2022

Technical Skills

Programming Languages: C/C++, GLSL, HTML, CSS, Python, JavaScript, TypeScript, Swift, R Tools & Technologies: AWS, Docker, Postman, AI, node, VSCode, PCB, DSP, Raspberry Pi

Operating Systems: Linux Ubuntu, Windows 10, MacOS

Frameworks: Tensorflow, Pytorch, Pandas, Numpy, Sklearn, Seaborn, React, Chakra UI, Firebase, Next JS

Professional Experience

Team Lead & Software Architect, AuthentiKid | California • Idaho • Florida

August 2023 - Present Day

Cumulative GPA: 3.9

Development of robust AI systems suited for AuthentiKids business needs. Collaboration and management of a small team of developers, psychologists and business leaders.

- Spearheaded the development of robust software systems tailored for AuthentiKid's operational requirements, resulting in new AI powered security tools.
- Managed a cross-functional team of developers, psychologists, and business leaders, fostering a collaborative environment and achieving a functional product.
- Overseeing comprehensive data collection initiatives and AI model training processes, ensuring optimal performance and accuracy
- Directed the design and implementation of both front-end and backend, including PKI systems.

Graduate Research Trainee, National Science Foundation at FAU | Boca Raton, FL

August 2022 – August 2023

Led research and development using CNNs for ocular disease detection via retinal photography.

- Developed, and tested software for detecting ocular diseases with deep learning and medical images using Tensorflow.
- Collaborated with professors and other graduate students on performing research and designing experiments.
- Implemented a framework for a web based audio-visual solution.

PCB Design & Assembly, Vector Climate | Pompano, FL

May 2020 - August 2022

Worked with Vector Climate Labs to assist in the production and develop of the companies advanced mobile cooling systems.

- Production and fabrication of the company's flagship products, the Vector and Spartan for industrial outdoor climate control.
- Responsible for PCB assembly duties involving prototyping, unit test and functional test assigned by Project Manager Engaged in onsite coordination, progress, planning, closeout, & quality control to add support to project development
- Soldering SMT and Thru Hole components on: PCBs, IC's, microcontrollers, power electronics, FETs, diodes and resistors. Sizes included 0402, 0603, 0805 SMT resistors, capacitors, diodes, ESD components

Relevant Projects

Online Deep Learning Based Age Authentication | AI Web App

January 2024

A web app for classifying users predicted age online for business and client security.

- Trained on synthetic quiz data from hundreds of simulated participants with personas for each age class.
- Person-centric tokens for issuing authentication tokens to user to validate their age with JSON Web Tokens. Private business servers can verify client tokens issued by the software.
- Deep neural net trained to classify users age based on quiz answer inputs locally using Tensorflow.
- Inferencing done on the web with Tensorflow JS. The model is trained in python and converted into tfjs format.
- Software and model are deployed on AWS as a network of servers.

Full Stack Website | Front End & Back End

January 2023

Designed, built and tested a full stack web platform for my immersive music & art based side project

- Deployment: https://obscuritymusic.net
- Chakra UI and CSS styles for front end design. Animations and reactivity with framer motion and intercept observer. Interactive Audiovisual puzzles with P5 and RNBO
- Firebase on the back end for user authentication with email, document reads & writes and profile image storage.

Object Detection System on Social Media | Deep Learning

December 2022

The goal of this project was to implement Convolutional Neural Network for detection of opiate related activity on Instagram.

- Designed a Convolutional Neural Network (CNN) leveraging computer vision techniques. Used web scraping post-training to analyze a vast number of images across the platform.
- Worked closely with professors and colleagues to research, design, and systematize the detection mechanism.

Relevant Coursework

Data Structures Cognition

Deep Learning **Artificial Intelligence** Natural Language Processing Software Engineering

Advanced Internet Systems Analysis of Algorithms

Data Science Comp Foundations of AI