Nir Tuttnauer

Software Developer

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Profile

Dedicated software developer with a strong foundation in computer science and a keen interest in leveraging machine learning to solve complex problems. Experienced in full-stack web development, mobile app development, and cloud technologies. Proficient in Swift, Java, JavaScript, Python, and modern frameworks like React and TensorFlow. Known for excellent problem-solving skills and a detail-oriented approach.

Education

Bachelor of Science: Computer Science, College of Management Academic Studies, 2022 – Present | Israel

Projects

Palm Phrase: Sign Language Translation App
- 2024

Led the development of a video chat app translating sign language to text using Expo SDK 50.

Implemented real-time video processing and text rendering using React Native.

Integrated with cloud services for scalable processing and storage.

Chest X-Ray Pneumonia and Covid-19 Detection
- 2024

The trained model achieves a high accuracy in detecting pneumonia from chest X-ray images. Detailed results and visualizations can be found in the test.ipynb notebook.

The models for Covid-19 detection showed significant performance, with binary classification achieving over 89% accuracy and multi-class classification reaching 82% accuracy.

Anomaly detection and KNN classification further enhanced the robustness of the system.

Probabilistic Error Spam Filter
- 2024

The Probabilistic Error Spam Filter is an advanced data structure project designed for efficiently classifying email addresses as spam or not spam. It utilizes Bloom Filters and Skip Lists to manage spam detection with a focus on minimizing error rates.

Hex Game CLI
- 2024

The Hex Game is a strategic board game implemented in Python. It involves two players, 'red' and 'blue', who alternately place their colored stones on a hexagonal grid. The objective is for a player to form an unbroken chain of stones between two opposite sides of the board. The game uses advanced data structures, including disjoint sets, to manage game state and determine the winner efficiently.

BookScrabble
- 2023

BookScrabble is a word game that challenges players to create words from a set of letters. The game is implemented in JavaFX and java with a dictionary lookup for valid words. Players can compete against each other, with LFU and LRU and Bloom Filter caching strategies to optimize performance.

AI Resume Tailor
- 2024

The AI Resume Tailor is a web application that uses ChatGPT to analyze and optimize resumes for job applications. The system provides personalized data for improving resume content, structure, and keywords to increase the chances of selection by applicant tracking systems.

Experience

Intern
at DevClub (2022 – 2023)
Gained proficiency in advanced web development technologies such as React.js, Express, and MongoDB through comprehensive training at DevClub.

Received mentorship to become a Full Stack Developer.

Photographer & Designer
at Self Employed (2011 – 2021)
Successfully managed a freelance photography and design business, enhancing client satisfaction and business growth.

Certifications

iOS & Swift - The Complete iOS App Development Bootcamp, Udemy
- 2023

Developed multiple iOS applications using Swift, integrating APIs, implementing user authentication, machine learning (ML), augmented reality (AR), and utilizing Figma. Skilled in iOS app development, UI/UX design, and framework integration.

Awards

Third Place at Hackathon, Oracle & College of Management Academic Studies
- 2023

Led a team to secure third place in the Oracle & College of Management Academic Studies hackathon (Apr. 2023) by developing and presenting an AI-based corn disease prediction software on the Oracle cloud platform. Demonstrated effective communication, quick

problem-solving, and exceptional teamwork skills.

Army Service

IAF Photographer
Rank: Corporal, IAF
Dates: 2016 – 2018

Skills

Python: TensorFlow, Pandas, Numpy, Matplotlib   JavaScript/Node.js: Express, JavaScript   Java: JavaFX, Threadpooling, Socket Programming

Swift: SwiftUI, ARKit, MLKit   C++: Data Structures, Algorithms, OOP   C: Embedded Systems   React: React.js, React Hooks, Next.js, React Native, Expo, EAS CLI

SQL: MySQL, MSSQL, SQLite   NoSQL: MongoDB, Mongoose   Backend as a Service (BaaS): Firebase, Supabase

DevOps: AWS, Terraform, Ansible, GitHub Actions, Docker, Selenium

Languages

Hebrew: Native   English: Fluent