Shirel Saadon | AI & Software Engineer

PERSONAL INFORMATION

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EDUCATION & MILITARY SERVICE

- 2009 – 2012 | Ort Afridar High School: Majored in Computer Science (10 study units) with focus on programming and algorithms.
- 2013 – 2016 | Military Service, Israel Defense Forces (IDF) Squad Commander & Deputy Platoon Sergeant – led soldiers in the field, demonstrating leadership and decision-making under pressure.
- 2019 – 2023 | Afeka College Bachelor of Science (B.Sc.) in Software Engineering.

EXPERIENCE

AI & Software Engineer | Green2Pass – Autonomous Vehicle Startup | 2024 – Present

Developed AI and backend systems for self-driving, enabling safe overtaking through advanced computer vision and cloud-based infrastructures.

- Real-time Video Processing: Developed multi-layer applications in C++ and Python on NVIDIA Jetson platforms, leveraging GStreamer, DeepStream, and TensorRT to optimize speed, accuracy, and performance of computer vision pipelines.
- Backend Infrastructure :Designed and implemented a Django-based backend for log collection, user management, and inference tracking, exposing REST APIs and integrating with PostgreSQL databases.
- Generative AI & Data Augmentation: Trained and fine-tuned Stable Diffusion and GAN models to generate synthetic driving scenes under challenging conditions (dense fog, low light), enriching datasets and stress-testing autonomous perception systems.
- Linux & Docker Development: Coded, tested, and deployed on Ubuntu Linux; automated workflows with Bash scripts and deployed scalable applications using Docker containers.

SKILLS

- Programming Languages: C++, Python, TypeScript, C#
- Operating Systems: Linux (Ubuntu), Windows
- GUI Development: Qt framework (C++ user interfaces)
- Linux Development: Bash scripting, g++, system-level debugging, performance optimization & profiling
- AI & Video Frameworks: NVIDIA DeepStream SDK, GStreamer, TensorRT, CUDA, Django
- Autonomous Systems Testing: Field testing, real-world validation, and system performance evaluation
- Collaboration & Teamwork: Strong cross-functional collaboration with algorithm engineers, software developers, and system integrators

ACADEMIC PROJECTS

- YuNetStream — Real-Time Face Detection:
  Implemented a high-performance face detection pipeline using TensorRT-optimized YuNet model integrated with NVIDIA DeepStream for real-time surveillance and driver monitoring applications on Jetson platforms.
- UrbanSense — Real-Time Traffic & Pedestrian Analysis:
  Developed a multi-DNN DeepStream application with CUDA optimization for accurate pedestrian and vehicle counting in dynamic urban environments on NVIDIA hardware.

LANGUAGES : Hebrew: Native Speaker , English: High level