Tomer Sedan

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EDUCATION

The Pennsylvania State University, GPA 4.0/4.0 **August 2021 - December 2024**

- Senior pursuing B.S. in Computer Science, Minors in Statistics and Computer Engineering.
- Schreyer Honors College scholar, working on an honors thesis in graph compiler optimizations.

Stanford University **June 2022 - August 2022**

- Completed Design and Analysis of Algorithms (C++, Python) as part of on-campus program.

TECHNICAL SKILLS

C/C++, Python, ROS, OpenCV, LLVM, ONNXRuntime, Unix, ARM/x86 ASM, Algorithms & Data Struct., SDL2, Git, Agile Project Management, Systems Programming, AWS, SQL (Snowflake).

EXPERIENCE

Undergraduate Research Assistant, Stanford **May 2024 - Present**

- Aiding in the development of generative compression algorithms, with focus on CV applications.

Project Management Lead, Advanced Vehicle Team **January 2024 - Present**

- Leading the Advanced Vehicle Team's competition planning and execution efforts to build an autonomous vehicle. Managing both human resources and the overarching project tasking.

Sensor Fusion Engineer, Advanced Vehicle Team **August 2023 - January 2024**

- Helped develop a level 4 autonomous vehicle for the AutoDrive Challenge II. Member of the Perception department, concerned with object detection and reaction software using ROS.
- Stitched three camera and two lidar sensor feeds to obtain depth and velocity data for objects with a 150 degree field of view, up 67% from the original 90 degree FOV.

Data Science Intern, Wurl **May 2022 - August 2022**

- Architected a reporting framework, giving over a hundred content partners data-driven insight into their advertising performance with Wurl across streamers, channels, and providers.
- Integrated Tableau visualizations with data queried from Snowflake using SQL. Pulled graphs into document templates using Python in AWS Lambda, in an entirely automated reporting process.

PROJECTS

Anx Compiler **January 2023 - August 2023**

- Built a compiled programming language in C++ using LLVM, with performance matching C.
- Implemented complex language features such as type-coercion and compiler intrinsics.
- Analyzed and optimized compiler performance metrics, speeding up short code compile times.

Rubato Python **October 2021 - February 2023**

- Lead creation of an SDL-based game development framework aimed towards young students.
- Designed fixed time-step rigid-body physics and a custom 2D graphics model with C++.

AWARDS

Dean's List, The Pennsylvania State University **December 2021 - Present**

Evan Pugh Scholar Award, The Pennsylvania State University **February 2024**

Finalist, ICPC Regional Qualifiers **January 2023**