

LYSANDER SCHMIDT

Autonomous Vehicles / Software Engineer

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lysanderschmidt.com

Play a game!

on request

lysanderschmidt

Redwood City, CA

EXPERIENCE

Cavalier Racing — Indy Autonomous Challenge

Software Engineer

April 2025 – Ongoing

University of Virginia

- Main contribution: real-time optimization of velocity profiles along precomputed trajectories, with visibility into the limiting factor at each position (traction, braking distance, slope, downforce, etc.). [See video from Capstone.](#)
- Working on using those limits to morph racelines in real time instead of treating them as fixed.
- Also built code to process LiDAR point clouds of racetracks, extract roadway surface normals, and serve pitch/roll references on-car in real time to improve localization inputs.

F1Tenth Course (AV Perception, Planning, and Control)

Teaching Assistant

Fall 2025

University of Virginia

- Helped teach UVA's feeder course for the autonomous racing team: office hours, grading, and debugging software configuration and vehicle issues.

Independent Software Projects

Builder

Ongoing

Personal projects used by friends, family

- Built an inventory app for my parents to track thousands of items across hundreds of drawers, with semantic search and photos of each location; it made moving into a new house much less jarring.
- Built a morning voice-agent app that dozens of friends use. It's context-aware and convinces you you slept well, which studies and anecdotes show is nearly as effective to act and feel awake as actual sleep.
- Built [sentenceresearch.xyz](#), a parody of [numberresearch.xyz](#) that only records new sentences with low cosine similarity to prior ones, designed to scale to hundreds of thousands of sentences on my self hosted infra.

Stanford Radiochemistry

Lab Assistant

Summer 2024

Stanford School of Medicine

- Increased efficiency and saved coworkers' time by automating data reporting processes (ex: converting machine generated reports to CSV; using GPT-4o to parse scanned handwritten documents for data aggregation).
- Managed radiation containment and safety during transport and delivery of radiopharmaceuticals, and also filled flexible roles like IT support and equipment troubleshooting. DoT Certified.



EDUCATION

B.S. in Computer Science

University of Virginia,
School of Engineering

Minor in Leadership

McIntire School of Commerce

May 2026

LANGUAGES & TOOLS

Typescript (& Javascript)

C++

C

Python

HTML/CSS

SQL

ROS

git

Bun

Vite

CI/CD

Relational DBs (via Prisma, raw SQL)

Node

AWS

Docker

Linux (Debian, Ubuntu, Alpine)

ACTIVITIES & CLASSES



UVA Entrepreneurship Cup \$1000 Winner

with two business partners, for
an idea to combat social isolation



Projects with Friends

Created mechanism by which
UValentine.com spread to 8000+
users in ~48 hours.

Built software to allow student
organizations to easily run the
game of assassin.



Selected Courses

Natural Language Processing,
Privacy in the Internet Age,
Effectual Entrepreneurship,
Product and Project Management,
Advanced Business Speaking,
Algorithmic Economics,
Advanced Algorithms