

# SAMUEL SHVARTSMAN

samuelsshvartsman@gmail.com — (717) 379-0229 — Github.com/zaltster — Harrisburg, PA — U.S. Citizen

## EDUCATION

---

**The Pennsylvania State University**, University Park, PA  
Bachelor of Science in Computer Science

Enrolled: 2022 — Expected: May 2026

## RELEVANT COURSES

---

- **Machine Learning and AI, Computer Vision, Data Structures and Algorithms, Database Management Systems, OOP with Web, Systems Programming, Fundamentals of Programming, Prog Lang Concepts, Digital Design, Linear Algebra, Calculus and Vector Analysis, Probability**

## WORK EXPERIENCE

---

**Machine Learning Engineer - Peak Nano: Python, Postgres SQL** **May 2025 - August 2026**

- Will develop and deploy ML solutions to improve physical processes for LGRIN lens creation by applying reinforcement learning and deep learning methods to optimize manufacturing processes
- Build data pipelines and machine learning models using Python, PostgreSQL, Redis, and FastAPI
- Collaborate with multidisciplinary teams of engineers and technicians directly to optimize engineering

**Full Stack AI Engineer - Intrepidus: Python, Typescript, Postgres SQL** **November 2024 - April 2025**

- Developed an AI-powered recruitment platform (website and executable) that conducts preliminary candidate assessment, creates comprehensive reports based on hiring manager meetings, analyzes market salary data, and features an interactive chatbot for role-specific queries using interview transcripts
- Integrated multiple AI services (DeepSeek V3, OpenAI 3.0, Gemini Flash, Azure Speech-to-Text) and communication tools (Resend email API) into a unified platform for a delightful user experience
- Built our website with secure authentication and data storage with Supabase (PostgreSQL), implemented robust cookie handling, and deployed using Cloudflare for enhanced performance and security
- Participated in investor meetings to secure funding and conducted client demos, directly contributing to product development and business growth
- Developed an app version with deployed code-signed executable applications for Windows

**Artificial Intelligence Engineer Intern - Radicalx: Python** **May 2024 - August 2024**

- Led a team of 5 Artificial Intelligence engineers to implement Retrieval-Augmented Generation (RAG) into Personalized Multiple Choice Assessment Generator, enabling teachers to create quizzes from a diverse range of document formats, including YouTube links, PowerPoint presentations, PDFs, and DOCX files
- Utilized Langchain, Huggingface Models, ChromaDB and GPT for the creation of project Multiple Choice Assessment Generator
- Implemented Pytests and collaborated with my team to establish testing protocols for the backend using FastAPI

## PROJECTS

---

**Machine Learning Engineer NG Hackathon: Python** **October 2024**

- Collaborated with two other computer science students to develop an object detection model using YOLOv8.
- Labeled images and trained the model using a 70/30 training test split on Roboflow to achieve a mAP score of **.98** and an F1 score of **.92** and won a total of **1000 USD**

**Sales Prediction Model: Python** **August 2024**

- Developed a Long Short-Term Memory neural network using Pytorch to predict the future amount of items a company should stock
- Implemented a Flask-based user interface that processes the company's sales data to generate visual forecasts of future sales

**Chart Visualization WebApp: Python, JavaScript** **July 2024**

- Developed a full-stack application integrating a Django API with a Next.js frontend to deliver many different kinds of data graphs, enabling data submission via both file uploads and API requests
- Configured the Django API to supply data for charts, including real-time candlestick data and other financial metrics

## SKILLS

---

- **Programming Languages:** Python, Javascript, C++, Java, C, SQL
- **Frameworks/Libraries:** Pytorch, Tensorflow, OpenCV, React, Next.js, Langchain, Django, Pandas, Numpy, Flask, BeautifulSoup, Selenium, Rodolfo, FastAPI, Pytest
- **Computer Science Skills:** Git, Linux, Postgres, Firebase, ChromaDB, Docker, Amazon Web Services, Code Signing