

Caleb Penley

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EDUCATION

Intended Bachelor of Science in Computer Science

The Pennsylvania State University, University Park, PA

GPA: **3.57**

Expected Graduation: May 2027

Relevant Coursework: Discrete Mathematics, Intro Systems Programming, OOP with Web-Based Apps, Programming Fundamentals & Data Structures, Digital Design

SKILLS

- Languages: Python, C, Rust, Java, JavaScript
- Tools & Libraries: PyTorch, HuggingFace Transformers & Diffusers, Git, GitHub, GDB

PROJECTS

Cinema Dashboard

June 2025 – August 2025

- Designed and built a real-time, asynchronous dashboard in Rust with a TCP backend for projector status and control.
- Implemented secure UUID-based authentication and automatic email alerts for critical errors and projector failures.

LLaMA Style Transfer

April 2025 – August 2025

- Fine-tuned a Llama 3.2 1B-parameter model on a limited private dataset, optimizing for style transfer quality.
- Explored supervised fine-tuning (SFT) with variations in I/O formatting to evaluate their effects on model accuracy.

Custom mdadm RAID Utility

January 2025 – May 2025

- Developed a mdadm-like tool in C for RAID management, delivering reliable performance through extensive testing.
- Integrated a caching system for efficient I/O and socket-based communication for scalable, networked performance.

Variational Autoencoder (VAE)

January 2025 – March 2025

- Built a convolutional VAE in PyTorch to efficiently learn compressed latent representations from CIFAR-10 data.
- Trained using KL-regularized loss, optimizing for low reconstruction error and diverse generative sampling.

Maya

December 2022 – January 2023

- Created a Python-based AI assistant with a REST API for CI/CD, and Azure for speech recognition and synthesis.
- Scaled to a TCP server-client architecture with multi-threading, media playback, and real-time weather data via API.

EXPERIENCE

Assistant Manager / Tech Lead

May 2024 - Present

Silver Star Cinemas

Warren, PA

- Led development of a dynamic movie listings web app, leveraging TMDB API, Firebase, and GCP for reliability.
- Maintained all technical infrastructure, including projection, AV, and networking systems, ensuring steady operation.

LEADERSHIP INVOLVEMENT

Vice President | Delta Phi, Psi Chapter

December 2024 – Present

- Coordinated and helped lead efficient communication between officers, the executive board, and all 36 members.
- Spearheaded goal-setting initiatives to help foster collaboration, fraternity growth, and individual success.

Assistant Coach | Eisenhower Knights Football

August 2023 – Present

- Mentor 25+ players, improving team skills and in-game performance through real-time feedback and adjustments.

HONORS

- Penn State Engineering Herman and Xoriant Trustee Scholarships

2023 - 2025

- PA State Senate and DAR Good Citizenship Awards

May 2023