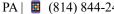
🍑 apa6323@psu.edu | 📍 Erie, PA | 🗏 (814) 844-2498 |







EDUCATION

Penn State Erie, The Behrend College **Bachelor of Science in Software Engineering** Schreyer Honors College Scholar

Graduation: Fall, 2027 **GPA: 3.99**

Graduation: Fall 2027

PROJECTS

- **Homebase-Style Web Application (Ongoing)**
 - Designed and implemented a full-stack scheduling platform with React, TailwindCSS, and FastAPI
 - Built authentication, scheduling features, and a messaging system for user communication.
 - Developed and maintained RESTful APIs, applying clean architecture principles.
 - Currently expanding the app with auto-generation of shifts, an innovative feature not found in the actual Homebase app, to streamline scheduling efficiency.
- API Integration Mini App (In Progress) Experimenting with React and OpenWeather API to display real-time weather updates.
- Testing Automation (In Progress) Writing Jest tests for Homebase components and exploring Cypress for end-to-end testing.

RESEARCH EXPERIENCE

Undergraduate Research Assistant - Computer Vision & Deep Learning

Penn State Behrend | Spring 2024

- Researched CNN models, specializing in YOLO architecture for real-time object detection.
- Studied seminal works such as AlexNet to understand convolutional layer design and performance trade-offs.

Undergraduate Research Assistant – Natural Language Processing

Penn State Behrend | Summer 2024

- Scraped and curated a custom dataset from the university website for fine-tuning T5-based and Llama-3.1-8B models.
- Created a QA-specific dataset for fine-tuning BERT-style models.
- Developed a model selection framework to help developers choose LLMs based on speed, accuracy, and resource requirements.

Undergraduate Research Assistant – Genomic Data Analysis

Penn State Behrend | Summer 2025

- Collected and processed genomic sequence data from the GPL570 dataset for unsupervised learning tasks. Having over 170 thousand rows (people) and over 54 thousand columns (genes).
- Designed and trained a sparse autoencoder that identified the top 5% of probes, reducing dataset dimensionality by 95% without performance loss.

WORK EXPERIENCE

Tutor of Math and Science, Programming Lifeguard | YMCA Front Desk| LRC of Penn State Behrend Physics Teacher Assistant | Penn State Behrend Digital Circuit Lab Assistant & Grading Assistant | Penn State Behrend

Spring 2023 - Present Summer 2024 - Present Fall 2024 - Present Fall 2025 Fall 2025

TECHNICAL SKILLS

- Programming Languages: JavaScript, Python, C++, Java, VHDL
- Front-End: React, Vue (familiarity), HTML, CSS, Tailwind
- Back-End: Node.js, Django (familiarity), FastAPI
- **Testing:** Jest, Cypress (basic)
- **Databases:** SQL
- Cloud/Tools: AWS, Azure, Git/GitHub