Henry Pacheco-Cruz

github linkedin   personal-site email

Education

Muhlenberg College   Jan. 2021 – May 2025
Bachelors in Computer Science   *2400 W Chew St, Allentown, PA*
- Machine Learning: Gained practical experience with machine learning concepts—including supervised and unsupervised learning, model training, and evaluation—by applying them to real-world datasets.
- Epidemiology and Computational Modeling: Explored epidemiological concepts through computational modeling and coding, creating simulations to analyze disease transmission dynamics; participated in a two-week field study in Panama, examining local public health systems and outbreak management strategies.
- Database Systems: Learned the principles of database design, normalization, and management using SQL and NoSQL systems, ensuring efficient data storage, retrieval, and integrity.
- Cyber Security: Studied cybersecurity fundamentals such as network security, encryption, vulnerability assessment, and ethical hacking practices to protect digital information and systems.
- Nerd Club: Collaborated weekly in team-based sessions to solve LeetCode challenges, strengthening problem solving skills, coding proficiency, and understanding of algorithmic concepts crucial for technical interviews.
- Intramural Soccer: Actively involved in intramural college soccer leagues, demonstrating teamwork, communication and time management skills while balancing athletic participation with academic responsibilities.

Lawrence High School   Sept. 2016 – June 2020
High School Diploma   *2525 Princeton Pike, Lawrenceville, NJ*
- Princeton University Preparatory Program (PUPP): Completed a rigorous, multi-year academic enrichment program at Princeton University, enhancing critical thinking, analytical, and research skills through advanced coursework, college readiness workshops, and intensive summer institutes.
- Vice President, National Honor Society: Demonstrated leadership by organizing community service initiatives, managing events, and promoting scholarship, leadership, and integrity among students.
- Varsity Soccer Athlete: Developed teamwork, discipline, and time management skills through consistent participation in varsity athletics, successfully balancing rigorous training schedules with academic responsibilities.

Experience / Projects

Princeton NuEnergy   June 2024 – Aug. 2024
Database Intern   *Bordentown, NJ*
- Web-Based Database Development: Designed and implemented the company's first web-based database prototype to efficiently track and manage lithium ion battery sample data, replacing existing Excel-based workflows.
- User Authentication and Security: Developed a secure authentication system that incorporates strong username and password management, ensuring controlled access and data integrity for sensitive company information.
- Data Optimization:. Streamlined data entry and retrieval processes, significantly improving usability, efficiency, and accuracy in the handling of research-related datasets

Apple Lehigh Valley   Sep. 2024 – Jan. 2025
Sales Specialist   *Whitehall Township, PA*
- Customer Engagement & Satisfaction: Provided exceptional customer consultations and product demonstrations, achieving an Apple Care conversion rate above 60% and maintaining a Net Promoter Score (NPS) consistently above 94.
- Sales Excellence & Recognition:. Surpassed monthly sales goals by identifying customer needs and offering personalized technology solutions, recognized with the "Applause" award for outstanding sales performance.

Facial Recognition and Gesture Detection
Personal Project
- Real-Time Face Detection: Developed an interactive face-tracking application utilizing Python and OpenCV, implementing Haar cascade classifiers to accurately detect and visually highlight faces in real-time video streams.
- Computer Vision Skills: Enhanced skills in image processing, video capture, and object detection techniques, demonstrating capability in practical computer vision applications.

Technical Skills, Language Skills, and Interests

OS: macOS
Programming Languages:Java, Python, HTML, CSS, JavaScript, React, NodeJS, SQL, NoSQL
Libraries: OpenCV
Version Control: Git
Writing: LaTeX, Office, Google Docs
Languages: English (fluent), Spanish (fluent)
Interests: Music, Fitness, Sports, and Gaming