Alexander Torres Vivaldo

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https://github.com/AlexDaGreat555

EDUCATION

Carnegie Mellon University — Pittsburgh, PA
Bachelor of Science in Information Systems, GPA: 3.35 — 05/2027
Minor in Information Security, Privacy, and Policy, Concentration in Information Security
Relevant Coursework: Usable Privacy & Security, Application Design & Development, Database Design & Development, Information Systems Milieux, Principles of Imperative Computation, Fundamentals of Programming

TECHNICAL SKILLS

Programming: JavaScript, Python, SQL, Java, C#, C, Ruby, R, HTML/CSS
Technical: AWS, Django, React, Ruby on Rails, PostgreSQL, MongoDB, Linux, Git, GitHub, Figma
Certifications: Google Cybersecurity Professional Certificate, AWS Fundamentals Certificate

WORK EXPERIENCE

Database Design & Development — Pittsburgh, PA
Teaching Assistant — Incoming 08/25

Chalfant Run-Thompson Run Watershed Association — Pittsburgh, PA
Software Engineering Intern — 05/2025 – Present

Summer Undergraduate Research Apprenticeship — Pittsburgh, PA
Researcher — 05/2025 – Present
- Developed clear data visualizations to communicate distinct patterns and insights from survey and observational data
- Built and ran regression models to evaluate factors influencing household heating coping mechanisms

Information Systems Milieux — Pittsburgh, PA
Teaching Assistant — 01/2025 – 05/2025
- Assisted during web development & database labs, delivering hands-on support to students on coding challenges and debugging
- Facilitated TA office hours, offering technical guidance on SQL queries, databases, web development, and JavaScript functionalities to enhance student understanding

PROJECTS

Discord Database Design & Development (SQL, PostgreSQL, Python, Databases)
- Reengineered the early stages of Discords database by incrementally transforming ten user stories to conceptual and physical model to develop and initialize the database via PostgreSQL
- Developed and executed ten user stories using advanced SQL queries, triggers, and functions to ensure database integrity and support business requirements

Roi Du Pain (MVC, Ruby on Rails, API Development)
- Engineered maintainable Ruby on Rails e-commerce application by seamlessly integrating MVC components for a robust user and administrator experience
- Implemented authentication and authorization mechanisms to manage user roles, providing differentiated views and access controls for users
- Developed RESTful APIs to enable external services to access application data securely and efficiently

Microsoft Paints Program (Python, OOP, Debugging)
- Developed a canvas painting program within two-week timespan, utilizing top-down design and object-oriented programming to enhance efficiency and meet deadline
- Maintained neat and well-organized code, which facilitated overcoming bugging issues and streamlined the debugging process

LEADERSHIP AND PROFESSIONAL DEVELOPMENT

Management Leadership for Tomorrow — Washington, DC
Career Preparation Fellow — 01/2025 – Present
- Accepted into a selective 18-month professional development program for high-achieving diverse talent
- Complete business case studies and assignments to grow leadership and technical skills
- Attend conferences hosted by industry leaders, such as Deloitte, LinkedIn, and Target

Society of Hispanic Professional Engineers — Pittsburgh, PA
Member — 08/2023 – Present
- Contributed to community-building among Hispanic STEM students and participated in professional development experiences such as attending conferences, and resume and interview workshops