Brandon Vazquez Munoz

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EDUCATION

Cornell University, College of Engineering - GPA: 3.535 **Ithaca, NY**

Bachelor of Science in Computer Science **Expected May 2027**

- **Relevant Courses:** Analysis of Algorithms**,** Object-Oriented Programming & Data Structures, Functional Programming, Math Foundations of Computer Science, Linear Algebra, Multivariable Calculus, Operations Research

Honors:

- **Gates Scholar:** A highly selective, prestigious scholarship for outstanding high school seniors across the U.S. Chosen as 1 of 750 recipients from a pool of 51,000+ applicants nationwide
- **Lockheed Martin STEM Scholarship Recipient:** Awarded a competitive merit-based scholarship recognizing excellence in STEM, academic achievement, and leadership potential

WORK EXPERIENCE

Software Engineering Intern, 434 Media Group, San Antonio, TX **May 2025 - Present**

- Leading the iterative redesign of Digital Canvas, a new digital brand site; presented three completed deliverables to senior staff and continuously refining a fully responsive interface aligned with evolving goals
- Collaborated with engineers and leadership to modernize internal systems, refactoring legacy architecture and utilizing Airtable + Notion APIs to streamline CMS workflows across 7+ managed websites
- Enhancing an existing analytics dashboard to enable simultaneous insights across all 7 client websites (previously limited to one), using Meta Graph API and Google Analytics to centralize engagement, traffic, and geographic data

Software Developer, Cornell University Unmanned Air Systems, Ithaca, NY **October 2023 - Present**

- Developed a path-planning reinforcement learning agent in Gymnasium with Stable Baselines, achieving 99% success rate
- Engineered an obstacle detection system for fixed-wing UAVs using LiDAR and DBSCAN clustering, improving real-time object detection and autonomous flight safety in constrained environments
- Trained deep learning models (YOLO + SAHI) with transfer learning and synthetic data to detect and classify alphanumeric ground targets with 98% accuracy, enabling reliable autonomous missions

Software Engineering Consultant, LinkedIn (Via Cornell ASCEND), New York, NY **May 2024 - May 2025**

- Developed and optimized an audio-to-transcription-to-feedback pipeline using OpenAI Whisper, a Python backend, and Supabase, reducing total response time by roughly 58% (60s → ~25s) to improve real-time usability
- Engineered an interactive interview interface in React.js and Node.js, integrating question prompts and user data with backend APIs to generate LLM-driven evaluations, tested by 20+ users in MVP stage

Campus Director, Thrive Scholars, Ithaca, NY **August 2024 - May 2025**

- Spearheaded the planning and execution of events for a cohort of 15+ scholars, leveraging tools like Google Sheets and Notion to track logistics, automate outreach, and ensure resource visibility
- Managed an event budget and handled all logistical aspects, from submitting proposals to completing post-event documentation, ensuring 100% compliance with organizational guidelines

Software Engineering Extern, Citadel, New York, NY **May 2024 - August 2024**

- Developed a full-stack stock comparison platform using Django, JavaScript, and Python, integrating Yahoo Finance and Gemini AI APIs to analyze 6 key indicators (SMA, EMA, RSI, etc.) and deliver maximum profit scenarios
- Completed 25+ hours/week of instructor-led data structures and algorithms workshops, alongside 10+ finance courses covering market structure, asset classes, hedge fund strategies, and quantitative modeling
- Engaged with Citadel engineers and senior leadership through mentorship, project reviews, and talks focused on fintech

PROJECTS

- **EchoAce —** An on-demand behavioral interview simulator powered by LLMs, enabling users to practice spoken interview questions and receive personalized AI feedback across 99+ languages. Won the LinkedIn ASCEND Best Project Award
- **Scrabble-Inspired Game —** Engineered core mechanics for a team-developed Scrabble-inspired game using Rust, handling randomized letter assignments, player racks, placement/removal logic, and turn-based multiplayer mechanic
- **Personal Website —** React portfolio site with 3D visuals (Spline) and light/dark theming, deployed via GitHub Pages

TECHNICAL SKILLS

Languages & Frameworks: Python, JavaScript, Java, OCaml, HTML, CSS, React.js, Node.js, Flask
Libraries & Tools: PyTorch, OpenCV, NumPy, Pandas, Scikit-learn, Stable Baselines, Supabase, Matplotlib, Git, Bootstrap
Interests: Spanish Language (Native Speaker), Bodybuilding & Exercise Science, Robotics, Board Games, Poker