

# EMILIANO GUTIERREZ

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## Education

### Stevens Institute of Technology

May 2028

*B.S. Computer Science — GPA: 3.00 — 2nd Year (2/4)*

*Hoboken, NJ*

- Awards: Presidential Scholarship, Edwin A. Stevens Scholarship, Stevens Grant.
- Relevant Coursework: Discrete Structures, Computer Architecture, Algorithms, Systems Programming, Principles of Programming Languages, Intermediate Statistics, Software Development Process, Computers and Society, Frontiers of Technology: Biotechnology, Physics Lab I.

## Technical Skills

**Languages:** Python, Java, C++, C, Scheme, SQL, Assembly.

**Tools:** Git/GitHub, Jira, Pandas, NumPy, scikit-learn, Jupyter, Excel.

**Strengths:** Data Structures & Algorithms, Computer Architecture, Systems Design, Data Processing.

## Projects

### Waddle – Job Portal MVP (In Progress)

*Next.js, Node.js, MongoDB, Jira*

- Developing a platform for Stevens students to access paid internships and externships from Hoboken and NYC businesses.
- Building features including business accounts, internship posting workflows, dashboards, and authentication logic.
- Using Jira for sprint planning, backlog refinement, and coordination across a six-person engineering team.
- Designed scalable backend architecture targeting 3,000+ student users.

### Silverback CPU – Custom Single-Cycle Processor

*Logisim-Evolution, Python, Assembly*

- Designed and implemented a custom single-cycle CPU datapath including register file, ALU, instruction memory, data memory, and program counter.
- Created a bespoke 8-bit instruction set architecture (ISA) with fixed-length encodings for arithmetic and load/store instructions.
- Built a Python-based assembler translating custom assembly programs into executable machine code for Logisim.
- Developed and tested demo programs validating correct instruction execution and memory behavior.

### Algorithm Visualizer

*C++*

- Built an interactive tool visualizing sorting and searching algorithms with runtime metrics, improving peer learning by 30%.

### Data Analysis Pipeline

*Python*

- Automated preprocessing pipeline reducing data cleaning time by 40% using Pandas and modular functions.

## Experience

### Stevens Software Engineering Club

Aug 2025 – Present

*Product / Project Manager*

*Hoboken, NJ*

- Led development of a full-stack job portal MVP, coordinating frontend and backend deliverables across six developers.
- Created user stories, sprint boards, and acceptance criteria in Jira, improving alignment and on-time delivery.
- Implemented GitHub Actions CI workflows reducing merge conflicts and improving deployment reliability by 30%.
- Facilitated code reviews and retrospectives to maintain code quality and accelerate feature delivery.

### The Wash Tub

Mar–Aug 2024; May–Aug 2025

*Operations Associate*

*San Antonio, TX*

- Automated reporting workflows identifying bottlenecks and reducing operational discrepancies by 20%.
- Analyzed throughput metrics and redesigned workflows increasing efficiency by 15%.
- Trained 10+ employees, standardizing processes and communication.

## Leadership

### Delta Tau Delta Rho Chapter

Jan 2025 – Present

*New Member Educator*

*Hoboken, NJ*

- Lead education program for new members, designing weekly learning modules and coordinating chapter-wide onboarding.
- Facilitated training sessions on leadership, academic support, and risk management.
- Managed communication between executive board and new member class to ensure smooth integration and accountability.

## Additional

**Languages:** English, Spanish.

**Interests:** Applied AI, Software Engineering, Soccer, Videography, Photography.