

**Aiden A. Figueroa**  
[aaf45@njit.edu](mailto:aaf45@njit.edu) | (973)-934-0804

**EDUCATION**

---

**New Jersey Institute of Technology**

Expected May 2028

Bachelors of Science in Computer Science,

*Relevant Coursework: Data Structures & Algorithms (Java), Object Orientated Programming (Python), Programming Language Concepts (C++, Lexical Analysis, Parsing, Interpreting), Database Management & Design (Relational DBs, Relational Algebra, SQL, ER diagrams, Schemas, Normalization), Physics 2, Calculus, Discrete Math, Linear Algebra, Intensive Programming In Linux (Linux, C, BASH)*

**WORK EXPERIENCE**

---

Software Data Analyst | LawSoft

September 2023 - Present

- Engineered data management solutions for CAD/RMS systems using Oracle SQL, optimizing application performance and supporting critical law enforcement operations
- Developed full-stack interfaces with Python, JavaScript, HTML5, and CSS to enhance user workflows, increasing operational efficiency through improved data visualization
- Collaborated cross-functionally with development teams and business stakeholders to align technical implementations with organizational objectives and product requirements

Lead Developer & Designer | Veluna

August 2024 - Present

- Direct end-to-end product strategy and technical execution for client web solutions, managing full project lifecycle from MVP development through agile iteration and deployment
- Define system architecture and technology stack decisions while maintaining stakeholder alignment, managing client expectations, and facilitating feedback loops
- nApply lean startup and other methodologies and market analysis to deliver scalable, customer-centric technological solutions that drive measurable business value

IT & Operations Specialist | Axtons by Chef Anton Testino

March 2022 - Present

- Manage enterprise point-of-sale (Toast POS) system administration, including configuration, troubleshooting, and cross-training staff on technical workflows to ensure operational continuity
- Own digital presence strategy by designing and maintaining business website and producing professional photography content for marketing initiatives
- Lead rapid problem-solving initiatives in high-pressure environments while coordinating cross-functional teams to maintain service excellence and operational efficiency
- Manage and train employees on an entire array of different operational tasks I was both trained and not trained on
- Independently designed and delivered a custom full-stack e-commerce platform for the business, integrating Stripe payments, an admin dashboard, automated inventory management, and a social influencer discovery tool — see Projects section for full detail

AI Systems Engineer | NJIT

September 2024 - Present

- Developed and benchmarked AI-driven IT operations systems in isolated VM environments, simulating real-world in infrastructure scenarios using Bash scripting and automated testing pipelines
- Conducted applied research into AI safety and reliability frameworks, synthesizing findings from academic literature to inform system design decisions
- Co-led a team research initiative focused on deploying AI systems in enterprise IT operations, with a focus on safety compliance and operational reliability
- Coordinated team workflows and research direction, ensuring alignment between technical execution and project goals
- Contributed to a research roadmap for safe AI deployment in mission-critical IT environments, targeting scalable and auditable operations

**PROJECTS**

---

[\[BrowserBasket\]](#) | Javascript | HTML5 | CSS | Bootstrap | Python Flask | Jinja | Deployment | Git/Github | A.I. | Sockets | U.X. & U.I design | API usage | Deployment |

- Built a full-stack web application that aggregates commonly used websites into organized categories and subcategories, simplifying internet navigation for everyday users
- Engineered user authentication (sign up / log in) with session management, enabling personalized profiles with custom profile pictures and liked/loved websites
- Implemented a real-time community engagement system where users can like and love individual websites, with aggregated counts displayed publicly across all users via WebSockets
- Designed an intuitive U.X. focused on accessibility and safety, reducing the complexity and risk of open internet browsing for non-technical users
- Deployed a Python Flask + Jinja2 backend with a responsive Bootstrap frontend, managing routing, templating, and A.I.-assisted features across the full stack
- Integrated a custom A.I. assistant that accepts natural language website requests and returns curated website recommendations, which users can save directly to their personal custom categories

**[KILLerror (KILLerr)]** | Python | DSL Design | Lexer/Parser | AST | Interpreter | Event-Driven Architecture | Static Analysis | Multithreading | Git/GitHub |

- Designed and implemented a custom debugging Domain Specific Language (DSL) that allows developers to declaratively analyze, validate, and enforce safety rules across multiple programming languages from a single unified syntax
- Engineered a thread-safe, priority-based event bus system with dynamic listener registration, category filtering, and fault-isolated dispatch, serving as the core runtime infrastructure for the entire ecosystem
- Built a full lexer, recursive-descent parser, and AST evaluator capable of processing language constructs including DEBUG, SAFE, BLOCK, REPORT, WATCH, and MATCH with modifier flags and named block scoping
- Implemented a multi-tier static analysis pipeline that classifies findings into errors, warnings, and suggestions — each numbered, line-attributed, and paired with fix descriptions in structured reports
- Developed a SAFE and BLOCK keyword system that performs pre-execution safety analysis on destructive languages like Bash and SQL, preventing execution when critical risks are detected
- Architected a user-extensible rule engine via MATCH and RULESET constructs, enabling teams to define and share custom domain-specific linting rules without modifying core interpreter logic
- Designed the full language specification from syntax to execution model, making deliberate tradeoffs around declarative semantics, composability, and multi-language extensibility

[EmpowerHealth] | Static Design | Javascript | HTML5 | CSS | MVP Development | Deployment | Git/Github

- conceptualized and shipped an MVP enabling at-home self-assessment across five health domains: hearing, vision, hormones, memory, and mobility
- Designed the full product scope and UX flow solo — interactive tests, games, and personalized guidance covering diet, exercise, and external resources per domain
- Demonstrated end-to-end product thinking from problem definition and feature scoping to a fully functional shipped site

[Love Language] | Javascript | HTML5 | Node.js | Bootstrap | Socket Programming | MVP Development | SQL | Deployment | Git/Github |

- Built a full-stack dating platform MVP where users sign up, authenticate, and manage profiles including a profile picture, photo gallery, birthday with calculated age, and location
- Designed and implemented three interactive multiplayer games — Truth or Dare, Twenty Questions, and Would You Rather — each with in-game messaging, a 3-hour streak timer that pauses on disconnect and resets on expiry
- Engineered a lobby system supporting both public and password-protected private lobbies capped at two players, with a lobby selection screen displaying real usernames and clickable profile previews
- Developed a Truth or Dare game engine where users submit custom truths and dares alongside auto-generated ones, with separate category queues, photo submission requirements per dare, and typed response submissions per truth
- Implemented full session-based auth with login, logout, and profile management, keeping the experience self-contained and game-first rather than messaging-first

[Axton's Merch Store] | Javascript | STRIPE API | PHP | HTML5 | CSS | Bootstrap | SQL | Deployment | Database Design & management | GIT/Github |

- Built a full-stack restaurant e-commerce platform where users authenticate, browse menu items with images, manage a cart, and complete purchases through a fully integrated Stripe checkout pipeline with real-time payment analytics
- Developed a multi-tab admin dashboard with dedicated panels for Products/Inventory, Orders, Users, and Stripe Analytics — each with full CRUD operations, archival and deletion workflows, and a global archived records view for soft-deleted data
- Implemented two-tiered stock management where inventory decrements automatically on purchase and admins can also manually override stock counts per product directly from the dashboard
- Built a user management panel displaying registered users with shipping addresses, referral sources, and URL-based traffic tracking, alongside calculated metrics including users-to-orders ratio and per-user product summaries showing quantity purchased and total spent

- Designed a separate analytics dashboard with date-filtered revenue reporting, manual revenue override by date range, website traffic insights broken down by traffic source, marketing channel, and campaign name, and a social media referral breakdown by platform
- Delivered a custom Social Influencer Finder tool allowing the client to search and filter social media accounts that review restaurants by follower count range (min/max), state, and niche category
- Implemented a skippable user onboarding form capturing shipping information and referral source on first login, with URL parameter tracking feeding directly into the admin referral breakdown
- Architected the full relational database schema using ER diagram design, supporting normalized data across users, products, orders, inventory, analytics, and archival tables

## **Skills**

---

Programming & Development: Blueprint (Unreal Engine), Algorithmic Problem Solving, Java, C

Web & Software: HTML5, CSS, JavaScript, Python, Oracle SQL, SQL, SQLite, PHP

Design & Multimedia: UI/UX Design Principles, Photo/Video Editing (CapCut, OBS, Adobe), Document Design (Latex & Overleaf), Digital Design (Canva & Template.net)

Tools & Platforms: Microsoft Office Suite, Google Workspace, Git/Version Control, BitBucket, AWS

AI & Automation: OpenAI API, Anthropic Claude API, AI-assisted development tools