

Vera Gonzalez

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EDUCATION

University of Maryland

Bachelor of Computer Science / Concentration in Biology

College Park, Maryland

September 2018 - December 2022

- **Relevant Coursework:** Object Oriented Programming 1 & 2, Introduction to Computer Systems, Discrete Structures, Organization of Programming Languages, Algorithms, Computer Systems Architecture, Programming Language Technologies and Paradigms, Cryptography, Web Application Development with JavaScript, Bioinformatic Algorithms, Programming Handheld Systems

WORK & PROJECTS

Polyblade

Creator; Programmer

Washington, D.C.

February 2024 - Present

- Synthesized research within the study of graph theory, mathematics, and geometry, developing a novel rendering tool for polyhedral graphs and transformations between them.
- Utilized the WGPU Rust crate in conjunction with WGSL shaders to create cross-platform graphics pipeline compatible with Vulkan, OpenGL, Metal, DX12, and WebGPU graphics APIs.
- Optimized frequently utilized algorithms, including both the All-Pairs Shortest Path problem and the exhaustive enumeration of Chordless Simple Cycles in the case of undirected unweighted polytopic graphs.

Banyan Storage

Software Engineer

Remote

February 2023 - June 2024

- Evaluated viability of myriad software libraries to attain project goals, communicating detailed technical reports and cost/benefit analysis to leadership, achieving accelerated decision-making processes in fast-paced startup environment.
- Retooled and reorganized existing codebases, condensing a critical CLI application with over 20,000 lines of code to fewer than 4,000 while expanding functionality, designing use-case tailored Rust Traits, improving end user experience, and implementing novel login and query paradigms in anticipation of database schema alterations.
- Authored intricate SQLite tables, migrations, and queries within core backend services to deliver new features and improve the scalability of product infrastructure.
- Engineered browser-side WASM APIs for representing and interfacing with database models, collaborating with frontend engineers to ensure React and TypeScript code congruence.
- Designed and delivered comprehensive Rust library for reading and writing Content Addressable aRchives (CAR) in congruence with IPLD specifications, implementing granular test cases and code documentation while surpassing the functionality of existing technologies within the Rust ecosystem.

Terrapin Works

Software Developer

College Park, Maryland

September 2019 - December 2021

- Engineered software on a production scale for both internal and external applications, working closely with university professors and industry professionals, collaborating with peers to deliver high quality software and client support.
- Deployed public facing [website](#) still in use today comprised of hundreds of Drupal components, gaining and utilizing proficiency in Git, Jira, Drupal, JavaScript, TypeScript, and React in doing so.

SKILLS

Languages

Rust, SQLite, React, TypeScript, Lua, OCaml, Swift, SwiftUI, Java, Javascript, C, Python, Bash.

Softwares

Neovim, XCode, VSCode, Figma, Firebase Suite, Photoshop, Premiere, Davinci Resolve, Notion.

Paradigms

Agile Development, CI/CD, Unit Testing, Integration Testing, UX Design & Optimization.