

Kennett Adrian Puerto Diaz

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Experience

University of Kentucky [[C++, Typescript, Javascript, Go, Lua, smt]]
Graduate Research Assistant

May 2025 - Ongoing
Lexington, KY, U.S.A

- Developed Mock Master, a SMT value extractor and mock generation pipeline for the Bosque Programming Language, which allows us to get runtime errors at compile time.

Kentucky State University [[Python, SQL, AWS, C/C++, IoT]]
Undergraduate Research Assistant

August 2023 - August 2024
Frankfort, KY, U.S.A

- Led a 3-person team on the development of Beesual. An anomaly analyzer for beehives. Beesual alerts and predicts the temperature of a beehive before it reaches dangerous levels and alerts bee farmers before anything bad happens via Python.
- Developed the temperature monitoring system using embedded systems such as Arduino, 3D Modeling and C++.
- The analyzer renders a 3D view of inside of the beehive for farmers to easily detect any issues such as it being about bee illnesses or structural leaks which reducing hive losses.

Projects

Daedalus: Game Engine [[C]]

June 2025 - Ongoing

- Portable 2D game engine written in C99. In which everything is done from scratch. Window creation, player input, audio, hot-reloading code, custom UI framework, collision-checking algorithms and SIMD operations.
- Creating custom shader pipeline API for OpenGL. To render textures and 2D lighting systems and particle effects.

Yum-Yum-Reader : Document Viewer [[Odin, Raylib]]

October 2025 - Ongoing

- Yum-Yum-Reader is a file reader that supports the following formats at the moment. PDF, Epub, and MOBI.
- Custom UI system that can be customized by the end user without any need of programming.

Parser: Syntax Highlighter [[Javascript]]

June 2025 - August 2025

- Syntax highlighter parser for the Bosque Programming Language.
- Using the tree sitter library the parser is available to any text editor that has an implementation of it.
- Supported editor are Neovim, Emacs, Helix, Sublime Text, Visual Studio Code, Zed, Lapce, Lite XL, Atom, GNOME Builder, Kakoune, Micro, etc.

Education

Kentucky State University GPA: 3.8
Bachelors in Computer Science

August 2020- May 2024
Frankfort, KY, USA

University of Kentucky GPA: 3.5
Master's in Computer Engineering

August 2024 - On Hold
Lexington, KY, USA

Awards

Lyman T. Johnson Scholarship [[University of Kentucky]]

February 2024

- Awarded for students that follow in the footsteps of Lyman T. Johnson for their pursuit in education.

KAS Thoroughbred Award [[Kentucky Academy of Science]]

February 2023

- Highest Score of Thoroughbred in the Kentucky Academy of Science poster presentation.

Skills

Programming Languages: C, C++, Typescript, Javascript, Zig, Odin, Lua, Go, Java, Bosque, Bash

Tools: Linux, .NET, SQL, OpenGL, Azure, React, NextJS, Svelte, Boost, SQL, Kubernetes, NixOS, Django