

# Carlos “Karl” Hernandez

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## INTRODUCTION

A curious and driven student with real-world open-source experience looking to apply Computer Science and Mathematics to Biology and Linguistics and pursue a teaching degree in Math.

## EDUCATION

- Rice University** Houston, TX
  - Mathematics & Linguistics* *August 2021 - Present*
  - Courses: COMP 140: Computational Thinking, COMP 182: Algorithmic Thinking, COMP 411: Principles of Programming Languages*
  - Teaching two sections of COLL 128: The Art of Lazy Programming to classes of 19 in Fall 2022
  - HUMA 128: became the lead director for a documentary film with a team of 60 people involving Covid-19
- Stuyvesant High School** New York City, NY
  - Stuyvesant Endorsed Diploma* *September 2017 - June 2021*
  - Courses: Intro to CS, AP Computer Science, AI, Systems Programming, Computer Graphics, Software Development*
  - Vice President of the Stuyvesant Competitive Coding Club
  - President of a 200 member club: SJMC
  - Helped Stuyvesant CS teacher teach web development to a class of 25

## EXPERIENCE

- Google Mentorship Program** Remote
  - Student Mentee* *Dec 2020 - Jun 2021*
  - Led team of 3 engineers to compete a dynamic gesture recognition model
  - Integrated Tensorflow, Mediapipe, and OpenCV to create an efficient model
  - Received Stuyvesant High School's Principal approval and appraisal of our team's demo
- Open Source** Remote
  - Contributor* *Jan 2019 - Present*
  - Active Contributor for popular projects like: Arch Linux, Neovim, Rust Analyzer, and more
  - Maintainer of four AUR Packages on Arch Linux
  - Part of the Rice Linux Group that discusses and contributes to the Linux Community
  - Open Source Youtuber making tutorials for beginners: [SeniorMars](#)
- Competitive Coding Club** New York City, NY
  - Instructor* *Jan 2019 - June 2021*
  - Created and organized meetings teaching advanced algorithms to over 20 students
  - Led students to compete in competitions such as pclassics, a competition hosted by the University of Pennsylvania
  - Gave extra lectures relating to compilers, linux, and memory
- The Poetry Society of New York** New York City, NY
  - General Management* *Jun 2019 - Present*
  - Helped bring in over a thousand guests for the NYC Poetry Festival twice through adverting and management
  - Directed over 20 volunteers to set up vendor shops, stages for poets, and an art gallery for the Poetry Festival
  - Communicated successfully with the island's management team to deal with and recycle the festival's trash

## PROJECTS

- Gartus**: A graphics engine built from scratch in Rust that focuses on linear algebra, code optimization, and parsers
- Gesture**: A project that detects hand gestures in video and translates them to keyboard/mouse inputs, using Mediapipe, Opencv, and Keras
- Deet**: A Work-in-progress debugger for C programs written in Rust.
- ediSON**: Written in C, ediSON is an editor for JSON files so that users can edit, parse, and serialize JSON files with ease
- RISP**: A lisp interpreter written in Rust

## HONORS AND AWARDS

- Questbridge Match Scholarship
- 3rd Place Winner for the 2019 RCSB PDB Challenge
- Hack Rice 11 Challenge Winner

## SKILLS AND INTERESTS

- Interests:** Human Languages, Mathematical Problem Solving, Compilers, Teaching, Reading
- Languages:** Rust, Haskell, Racket, C, Python, Java, Bash, JavaScript (Web Development)
- Technology:** Docker, Git, MySQL, MongoDB (Certification), Linux, Raspberry PI, Apache
- Skills:** Leadership, Spanish, Beginner German, Public Speaking,