Elias Julian Marko Garcia

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About Me

First generation American born and raised in KC, MO that fell into programming. My interests include social science, systems programming, programming language theory, and decentralization. My work experience primarily involves working with standards, parsers, and greenfield project, often at the same time. My spare time is currently taken up by experimenting with Rust, reading Baudrillard, and tilting my head at windmills. My favorite hip-hip group is the Wu Tang clan, and they will be respected.

Education

University of Missouri-Kansas City

Bachelor of Science, Computer Science

May 2020

Skill Set

Programming: Six years of programming, including:

- languages: Lua, Python, Rust, Lisp, Haskell, SQL, LATEX, C++, Java, and JS/HTML/CSS.
- frameworks: React, Flask, and Rocket.
- operating systems: Linux (Debian derivatives and Arch) and macOS.
- applications: Nginx, Chef, Vagrant, Emacs, Git, IntelliJ, Postman, AWS S3, GitLab CI/CD, and Docker.
- standards: PDF-1.7 and 2.0, HL7 V2.x

Social science: Five plus years experience with economic policy, especially political economy and financial economics. Extensive research experience.

Projects

Pincers: Social media website based on twitter and built entirely with Rust's Rocket Framework and PostgreSQL.

HL7 2.x Parser: Implemented from standard a commercial HL7 2.x message parser using Rust and the parser-combinator Nom library.

Clear My Record Kansas City: Collaboration between UMKC's Law School, Code For Kansas City, and municipal government to start a free criminal record expungement clinic with open source software. Developed the back-end prototype using Flask and SQL.

Open Tabularius: Hack-a-Roo (spring '18) project for the Hogan charter school system for automating the intake and analyzing of student data. **Finalist submission**.

Don't Mix It!: Cerner intern Ship-It (summer '18) project to reduce adverse drug reactions (ADR) with an android app. Group project. Second place submission.

#Hashtag-Health: Cerner intern Ship-It (summer '17) project that visualized real time tweets pertaining to health coded phrases, keywords, and hashtags. Group project. Third place submission.

Tomaty: A python implementation of the Pomodoro Technique using GTK.

Twitter Bots: Implemented multiple bots using Python. Between all of them, I used the Dark Sky Weather API, Stanford's NLTK for text processing, Python's Pillow imaging library, PyPDF for PDF parsing, and lots of e-lisp regex'ing.

ageof.info: Third re-implementation of my personal blog, now using the Rust-based static site generator Zola, my own theme port, AWS S3 for static hosting, and GitLab CI/CD for automation of deployment.

Experience

Software Engineer

Special Circumstances Fully remote and distributed

August 2020

Work with Primary Investigators and collaborating organizations on DARPA's Safe-Docs research initiative on a novel grammar for parsing binary data in order to prove properties and improve security for PDF documents.

Rust Belt Rust Workshop Presenter

Rust Belt Rust Conference Dayton, Ohio

October 2019

Taught a full day workshop on implementing a lisp programming language, Ferrisp, using Rust.

Software Engineer

Cerner Corp.

summers of '16, '17, '18, '19

Kansas City, MO

I worked on Millennium, PopHealth, and Cerner Interop. For Millennium, I improved automatic localization. For PopHealth, I improved the automation of pipeline deployment and expanded infrastructure testing capabilities. While on Interop, I worked on a new solution for payer verification of healthcare claims by implementing an HL7 2.x parser with Rust as a CPython extension.

Vice President

Truman State ACM

fall '18

Kirksville, MO

Helped re-launch Truman's ACM chapter and regain our status with the national ACM program.

Writing Consultant

Truman State Writing Center

fall '16 — fall '18

Kirksville, MO

Helped edit and review papers of undergraduate and graduate students for classes and publication. Additionally, I was a writing fellow for Professor Gillette's ECON210 class.

Undergraduate Researcher

Truman State McNair Program

summer '16

Kirksville, MO

Participated in the McNair post-baccalaureate summer research interim, focusing on financial markets and financial crisis of '07.

Research Fellow

Independent Institute

summer '15

Oakland, CA

Assisted the institute in its re-branding, assisted in researched for full time fellows, and edited peer reviewed materials.

Awards and Honors

PLMW Scholar

2018

ACM SIGPLAN

Strange Loop Scholarship

2017, 2018, 2019

Project Alloy

Oscar and Susie Newton Memorial Scholarship

2019 — 2020

University of Kansas City-Missouri

DST Systems Computer Science Scholarship

2018 - 2019

University of Kansas City-Missouri

McNair Scholar

2015 - 2017

Truman State University

President's Honorary Scholarship

2014 - 2017

Truman State University

MO Scholar

2014

Missouri Scholars Academy