

ELSA VELAZQUEZ

BOULDER, CO

Data Science, Computer Science, Data Engineer

(915)603-2050

elsa.velazquez@colorado.edu

<https://www.linkedin.com/in/elsa-data-sci/>

<https://elsa-data-sci.tech/>

SKILLS

- Python, C, JavaScript
- XML, HTML5, CSS
- SQL, NoSQL, MongoDB, PySpark
- Blockchain technologies and risks
- Windows Operating System, Microsoft
- Sandboxed Environments, VMWare, Docker
- Linux Command Line
- Data Structures and Algorithms
- Perforce, GitHub version control software
- Reverse engineering
- Software process lifecycle
- Linux Command Line
- Firmware low-level programming and operating system internals
- Embedded systems
- Software architectures
- Cybersecurity applications
- Presently completing Python and JavaScript Coding Bootcamps
- AWS, EC2
- Networking fundamentals, protocols and common services such as DNS and hosting, bandwidth, throughput and latency constraints

EDUCATION

COMPUTER SCIENCE, B.S., Tau Beta Pi Honor Society, *CU Boulder, CO, Dec. 2019, 3.55 GPA*

GALVANIZE DATA SCIENCE IMMERSIVE, *Remote, October 2020*

INSTRUCTIONAL SPECIALIST, M.ED., *UTEP, TX, 2009, 3.5 GPA*

AVIATION ELECTRONICS- Technical, *US Navy, FL, 2003*

WEB DEVELOPMENT, A.A.S., Phi Theta Kappa Honor Society, *Seattle Central CC, WA, 2002, 3.5 GPA*

PSYCHOLOGY, B.S., *Texas A&M University, College Station, TX, 1998, 2.86 GPA*

EXPERIENCE

Curve10, Jan 2020 - present

FULL STACK SOFTWARE DEVELOPMENT ENGINEER, APPRENTICESHIP

Developing a private GitHub repo using NLP and Web Scraping, data visualization, code

cleaning, and data exploration; refactored Python code in a fast-paced environment to add client-requested functionality; proposed data pipeline techniques that reduced web page load time from >2.5 seconds to ~1 second on an 84.4KB NoSQL mongoDB by leveraging existing data structures in the DB and reducing the RESTful API payload, interfaced a django app in a Windows VSCode environment; debugged code using version control software (BitBucket)

Seagate Technologies, R&D, Jun 2019 - Jan 2020

FIRMWARE SECURITY ENGINEER- EMERGING PRODUCTS, INTERN III

Tested Post Quantum Cryptography (PQC) implementation for specific products (nondisclosure), contributed to a crypto-agile API in C legacy code; scouted, shortlisted and completed Proof of Concept for PQC in embedded applications; modified, tested, and implemented code for early stage prototyping of products secured with post-quantum cryptographic libraries

Senior Thesis, CU Boulder, Spring & Fall 2019

POST-QUANTUM CRYPTOGRAPHY EFFECTS ON THE BITCOIN BLOCKCHAIN

Code efficient Blockchain POW, blockchain and cryptocurrencies, elliptic curve digital signature and Schnorr's algorithm in Python; simulate attacks; propose solutions to diminish effects of quantum threats on Bitcoin Blockchain; 2019 Applied Computer Security Associates Conference, Puerto Rico

Independent Studies Research Assistant, CU Boulder, Summer 2018

MUSICAL SIGNATURES INTEGRATION WITH INTERACTIVE ROBOTIC OBJECT, RA

Prototype testable algorithms for iterative development and rapid prototyping; arrange tones for integration into Android app; initiate data organization and created a measurement tool for quantification

U.S. Navy, 2003-2005

CRYPTOLOGY (RESERVES), AVIATION ELECTRONICS (ENLISTED)

Referred to electronic systems in technical wiring schematics for troubleshooting; adhered to TS and Secret protocols

Other Work Included

FREELANCE WEB DEVELOPER, 2003- 2019

RESEARCH SPECIALIST, 1999-2003

ELEMENTARY SCHOOL INSTRUCTOR, 2007- 2017

AMERICORP VISTA PROJECT COORDINATOR, 1998-1999

PERSONAL PASSION PROJECTS/ PREVIOUS WORK PORTFOLIO

- <https://elsa-data-sci.tech/>