Elsa Velázquez

ELVE5895@COLORADO.EDU   https://github.com/elsaVelazquez/professional

EDUCATION

Computer Science

GPA 3.55

Tau Beta Pi
Honor Society

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

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

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

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

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

SKILLS

Creative

Coding

Problem-solving

Emotional Intelligence

Self-motivation

Oral and written
communication

U.S. Citizen

Bilingual
(Fluent in Spanish)

ADVANCED
- Blockchain technologies and risks
- XML, HTML5, CSS
- Windows Operating System, Microsoft
- Sandboxed Environments, VMWare
- Linux Command Line

INTERMEDIATE
- Data Structures and Algorithms
- Perforce, GitHub version control software
- C Programming Language, Eclipse IDE
- Reverse engineering
- Software process lifecycle
- Firmware low-level programming and operating system internals
- Embedded systems
- Software architectures
- Cybersecurity applications

EXPERIENCED
- Presently completing Python and JavaScript Coding Bootcamps
- SQL, NoSQL, MongoDB
- Networking fundamentals, protocols and common services such as DNS and hosting, bandwidth, throughput and latency constraints

PERSONAL PASSION PROJECTS/ PREVIOUS WORK
- http://www.rednetplaza.com/ (presently demo only)
- http://elsavelazquez.com/demo_CloudSystemsSoftwareEngineer/

EXPERIENCE

Curve10
Jan 2019 - present

SOFTWARE ENGINEER, CONTINUOUS INTEGRATION, APPRENTICESHIP
- Python, BitBucket, Atlassian, JavaScript, NodeJS, HTML, RESTful API's, VSCode, Linux

Seagate, R&D
Jun 2019 -
Jan 20209

FIRMWARE SECURITY ENGINEER- EMERGING PRODUCTS, INTERN III
- Test Post Quantum Cryptography (PQC) implementation for specific products (nondisclosure), contribute to a crypto-agile API in C programming language (legacy code)
- Scout, shortlist and complete Proof of Concept for PQC in embedded applications
- Modify, test, and implement code for early stage prototyping of products secured with post-quantum cryptographic libraries

POST-QUANTUM CRYPTOGRAPHY EFFECTS ON THE BITCOIN BLOCKCHAIN

Senior Thesis
CU Boulder
Spring & Fall 2019

- Code efficient Blockchain POW, blockchain and cryptocurrencies, elliptic curve digital signature and Shnorr's algorithm in Python and simulate attacks
- Propose solutions to diminish effects of quantum threats on Bitcoin Blockchain
- Accepted to the 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 as cues for human engagement in specific cognitive and language-based tasks
- Initiated 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
- Protected Secret data by loading bricks daily and wiping codes - Adhered to TS and Secret protocols

**Other Work
Included**

FREELANCE WEB DEVELOPER, 2003- 2019; **RESEARCH SPECIALIST,** 1999-2003; **ELEMENTARY SCHOOL INSTRUCTOR,** 2007- 2017; **PROJECT COORD.,** 1998- 1999