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
- Sandboxed Environments, VMWare
- Microsoft Office

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 javaScript and Python Coding Bootcamp
- 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/ (available 1/16/20)

EXPERIENCE

Seagate, R&D
Summer & Fall 2019

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

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 Shorr'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

- 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

ELEMENTARY SCHOOL INSTRUCTOR
2007- 2017

RESEARCH SPECIALIST
1999-2003

BRIDGE TO WORK PROJECT COORD
1998- 1999