

# ELIZABETH GAVINO

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Colorado Springs, CO

## EDUCATION

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**BI** Bachelor of Innovation Degree  
University of Colorado Colorado Springs,  
Computer Science  
Emphasis in Globalization

May 2023

## PERSONAL STATEMENT

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As a young child, my parents would always share their stories of coming to this country and sharing the difficulties that they encountered. My mother came to the United States at a pretty young age. She was able to complete her middle school and high school education and although it seems she had an easy upbringing, she was also one out of ten siblings. Her father was not in her life and my grandmother was diagnosed with a brain tumor. The brain tumor was so severe that she was only given 5 years of life.

My mother became the head of the household juggling school, cooking, cleaning, managing her younger siblings, and taking care of her mother. This caused my mother to grow up faster and become hyper-focused on making sure everything was completed a certain way and was always the main organizer of the family. My grandmother went on to live for twenty-five years with her brain tumor and the aid of my mother and aunt.

My father on the other hand was handed over at a young age to his very strict grandparents who then put him to work at the age of thirteen. He did not have the opportunity to complete middle school or high school. My father comes from an indigenous town where he was mainly working in fields and working with cattle or anything that was asked of him. Once he turned twenty-three, he started his dangerous journey to the United States with his older brother and landed in California.

He struggled to find a place to live and had to separate from his brother and would end up working in construction and renting to sleep on a coworker's couch. There were nights when food was not an option, or the only thing available would be a tortilla with lime and salt and that would be the only thing to keep him going through the night. My dad has achieved the most in life by nurturing relationships with those who gave him the opportunity to grow in life. I know that the amazing family that let him and my uncle rent out their garage is a family we still go visit today and are able to remember the many stories they have made together.

Hearing the struggles that my parents faced and being able to experience the great success they have accomplished, allows me to really push myself to work harder to show my parents that appreciation for everything they had to encounter. These stories can be applied to my life as a representation of where my family came from, along with being able to acknowledge the great opportunities I have been given due to their sacrifices. I have the honor of being a first-generation college graduate in my family with the support of my parents.

My parents have always told me to go after what I wanted in life and to explore the opportunities that were presented to me. Their stories remind me that although I may encounter what I would think is a huge roadblock on my road to success, I will be able to overcome it and come out stronger.

The story of the upbringing my parents had encourages me to achieve the most I can in this lifetime and to give back to them. My parents have the dream of being able to retire and build a home in my father's hometown along with my mother's hometown. I want them to be able to leave and enjoy their time knowing that they gave me and my siblings and the greatest amount of support and encouragement to pursue our dreams. Their story will always have an impact on how I pursue problems thrown at me and the roadblocks I may encounter.

Going into this crazy world after college, I will be able to use this mindset that was shown to me through my parent's story to really push forward no matter what is thrown at me. The importance of making the best of any situation and coming out on top is what we should strive to achieve. I would like to be able to share these stories and tell my own to future generations.

## **ACADEMIC EXPERIENCE**

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### **Innovation Courses**

#### **ENTP 1000 Introduction to Entrepreneurship**

Introduction to the process of turning an idea into a successful startup business. Introduces the process for creating a potentially successful business plan.

#### **INOV 1010 The Innovation Process**

Examines the interdisciplinary nature of innovation. Includes group exercises focused on improving team dynamics, brainstorming, conceptual-block busting and other creativity and problem-solving activities.

#### **BLAW 2010 Business and Intellectual Property Law**

Examines the legal significance of ideas, innovations, and start-up organizations. A focus on the issues of intellectual property, including patents, copyrights, and brand protection.

#### **INOV 2010 Innovation Team: Analyze and Report**

- Emphasizing team projects, research, analyzing data, and reporting.
- Client Company Name: Solid Blue Love  
Client Representative: Heather-Dawn Johnson  
Scope of Work: Application development, application redesign, target market research, Copyright rules and Laws research, app publication.

**INOV 2100 Technical Writing, Proposals, and Presentations**

Addresses five major types of technical writing: project reports, funding proposals, magazine and trade articles, technical reports, and journal articles. Includes peer review and critical assessments of others' writings.

**INOV 3010 Innovation Team: Research and Execute**

- Junior level continuation of the team's course sequence with advanced participation in team projects including research, design, and execution. Writing intensive course.
- Client Company Name: Suffrage Sashes LLC  
Client Representative: Louise E. Burg  
Scope of Work: Complete a domain transfer for website, create a donation option, implement store and gallery into website. Complete a user manual for the client.

**INOV 4010 Innovation Team: Design and Lead**

- Senior level continuation of the teams course sequence with emphasis on design and leading team projects. Writing intensive course.
- Client Company Name: Heartsters, LLC  
Client Representative: Jennifer Martinez  
Scope of Work: Create a reference with companies, application procedure and criteria to be evaluated for funding. Begin process of becoming a Non-Profit organization. Website plan to cover the needs, program framework, and design of the website along with functionality, features, and the projected cost of changing the website. Digital drawing of a 30-day calendar together with a description of the website, events, and news, as well as a report outlining the actions the Heartsters can take to construct a 60-day calendar.

**ENTP 4500 Entrepreneurship and Strategy**

Summit courses bridge general education goals with discipline objectives resulting in an enriching and culminating experience in a student's undergraduate education. Core components of Summit courses include a focus on core ethical principles of the discipline as well as communication skills

**Computer Science Courses****CS 1150 Principles of Computer Science**

Develops methods for computer problem solving. Develops proficiency for programming in a modern programming language and introduces the concepts of abstraction in problem solving. Includes basic concepts of computer systems and environments including debuggers, editors, and file systems.

**CS 1450 Data Structures and Algorithms**

Linear data structures: stack, queue. Linked data structures and dynamic data types. Search table data abstraction, linear search in arrays and lists, binary search in arrays and trees. Binary trees, non-binary trees, binary search trees.

**CS 2060 Programming with C**

A first course in the C programming language for those who are proficient in some other high-level language.

**CS 2080 Programming with UNIX**

An introduction to the UNIX operating system with an emphasis on the development of C and command shell programs.

**CS 2160 Computer Organization and Assembly Language Programming**

Introduces the concepts of computer architecture, functional logic, design, and computer arithmetic. It presents material on the mechanics of information transfer and control within a computer system, symbolic programming techniques, implementing high level control structures, addressing modes and their relation to arrays, subprograms, parameters, linkage to high level languages and the assembly process.

**CS 3050 Social and Ethical Implications of Computing**

Discuss topics in ethical, social, political, legal, and economic aspects of the application of computers. Each student is expected to research one or more topics, actively participate in discussions, and give a presentation.

**CS 3060 Object-Oriented Programming Using C++**

Learn the fundamentals of object-oriented programming, gain skill and proficiency in using the C++ programming language and exercise the C++ language in implementing a moderate sized software system designed with objects.

**CS 3160 Concepts of Programming Languages**

Evolution of the central concepts of programming languages, describing syntax and semantics, data types, abstract data types, control structures, subprograms, concurrency, and exception handling.

**CS 3300 Software Engineering**

Students build a solid foundation for developing and maintaining sustainable codebases through modern practices. Version control, project management styles, coding best practices, cloud services, and web technologies used to create deployable products and maintain work.

**CS 4200 Computer Architecture I**

Course covers fundamentals of computer design, instruction set principles and examples, pipelining, advanced pipelining and instruction-level parallelism, memory-hierarchy design, and survey of design issues in storage, interconnection network and multiprocessor systems

**CS 4220 Computer Networks**

Course focuses on the basic network and protocol concepts and principles with practical hands-on exercises on network management, network programming, and network planning using industry simulators. Including: Internet protocols and routing, local area networks, basic TCP/IP programming, congestion control, packet switching and routing, quality-of-service, and network management.

**CS 4420 Database System I**

Introduce general database concepts as well as database system technology. The course covers ER and R data models, R-algebra, SQL, data storage and indexing, query optimization, database design and security.

**CS 4500 Operating Systems I**

Introduces concepts, terminology, and algorithms of operating systems. Describes semaphores, processes, virtual mappings, interrupts, resource allocation and management, protection, synchronization, scheduling, queuing, and communication as applied to operating system design and implementation.

**CS 4720 Design and Analysis of Algorithms**

Design methodologies: divide-and-conquer, exhaustive search, dynamic programming. Time and space complexity measures, analysis of algorithms. Survey of important algorithms for searching, sorting, graph manipulation.

**CS 4300 Advanced Software Engineering**

Software methodologies and practices. A course project provides student teams practical application of software engineering techniques from conception through planning, development, assessment/testing, deployment, and operations while experiencing the related challenges.

**CS 3080 Python Programming**

Python basics, advanced topics including working with pdf, excel, JSON, CSV, decorators, lambda functions, generators, iterators, pattern matching, web scraping, threading, and multiprocessing.

## **CS 3110 Programming the Mobile Web**

Introduction to web systems and technologies with focus on the support for mobile platforms. Topics include HTML5, CSS, JavaScript, AJAX, web servers, server-side scripting/browser detection, content delivery, iOS, Android, and mobile web application development environments and processes.

## **COMPUTER SKILLS**

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**Programming:** Java, C, C++, Unix, Python

**Applications:** Microsoft, DOORS

## **WORK EXPERIENCE**

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**L3Harris - Software Engineer Intern**  
**Colorado Springs, CO**

**May 2022 – July 2022**

*Team Member in the Space and Airborne Systems Segment*

- Collaborated with a team of over eight to improve systems that were already in place to be more efficient and useful for the team overall.
- Organized DOORS system for long lasting usability.
- Researched solutions for specified non-root user requirements for system.
- Created and designed a proposal for solution to non-root user requirement and presented findings to the team along with the customer.

## **COMMUNITY SERVICE**

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**St. Gabriel The Archangel**

Summer Group Leader, St. Gabriel The Archangel Church

**Estrella Latinas de St. Gabriel The Archangel**

Advanced Ballet Folklorico Group Member, St. Gabriel The Archangel Church

## **LANGUAGES**

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**English:** Native Language

**Spanish:** Advanced Listener, Intermediate Speaker, Intermediate Reading, and Writing