Tai Martinez

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EDUCATION

University of Colorado Colorado Spring
Location: Colorado Springs, Colorado
Degree: Bachelor of Innovation in Computer Science
Date: August 2016 – May 2020

PERSONAL STATEMENT

Computer Science: the field of computer technology and innovation that appeals to those with strong STEM skills and a passion for computers. Similarly, it also the field of study where women only make up about 18% of Computer Science bachelor's degrees in the United States according to the Bureau of Labor Statistics. Initially, as a Hispanic female in a male dominated field I had several stereotypes to overcome that are typically correlated with minorities that generally brought down my confidence level when comparing myself to my peers. I learned early in my schooling in Computer Science that women were typically viewed as less superior and when there is a female that is as smart as than their male classmates, they are viewed as rare and especially gifted. I personally experienced this in several team projects in my more technical programming classes when I was tasked with doing the "lightwork" such as the report because my teammates did not think I could handle more technical tasks. Being on a team where your teammates don't have the confidence in you essentially drove my confidence in myself to the ground. As I experienced this more in my early years of college, I learned to overcome this judgment by volunteering to do more technical parts before assignments were given so I could show that I am able to handle what was tasked.

To add to this, I am also several years young for my class because I graduated high school early and started college when I was sixteen years old which did not add confidence to my overall feeling. Visibly being the youngest in a class often gave off the impression that I have a lack experience and thus knowledge among my peers. I picked up on this quickly and rather than dwelling on it, I used it to my advantage in which my youth made me more willing to learn whatever was needed to be successful.

Furthermore, by working through my classes mostly in teams or groups among my classmates, I was able to change this negative feeling into positive traits that I continue to use today. For example, by being assigned as a team lead, I discovered that I needed to speak up and voice my knowledge and opinions because it was just as valuable as those around me. This helped shape me into a more determined and persistent person as I had to push out of my comfort zone to speak out. In correlation to this, I also became more hard working throughout my education to stay competitive with those around me who already had the confidence working in a Computer Science environment. These are just several examples of the personal skills I obtained throughout my degree that I will continue to use in whatever I do in life and in my career.

Additionally, I am naturally a detail-oriented and results driven person therefore, I feel that Computer Science is a field where I can put these skills to good use. With that

being said, these skills that I have achieved over the years and throughout my degree have only helped fuel my passion of Computer Science and have only excelled me to push forward even more to acquire a career in this field. I am truly inspired by technology, more specifically the potential that technology has to affect the people around them by expressing the ideas and concepts of those who created it. By continually innovating this technology, there will always be new impacts in society. This is something that I would definitely like to be a part of and it continually inspires me to work hard to achieve that goal.

Personally, I value the results obtained of a situation and equally importantly, the process it took to get there. There was a long process of learning Computer Science and who I was as a person as well as who I want to be in the future. With this path I created so far with my studies, attaining a Bachelor of Innovation of Computer Science degree is something that will propel me forward to earning a career in Computer Science which will fuel this inspiration to help me achieve bigger and better accomplishments in Computer Science.

ACADEMIC EXPERIENCE

Innovation Core Courses

ENTP 1000: Introduction to Entrepreneurship
Date: Fall 2016
Description: Designed to provide an introduction to the process of turning an idea into a successful startup business and teaches how to assess opportunities for venture/value creation, to address/identify risk in the startup process and develop presentation skills to convince others of the potential success to implement the business entity.

INOV 1010: The Innovation Process
Date: Fall 2016
Description: Overviews the key components in the innovation process and examples of major innovations throughout history while including group exercises focused on improving team dynamics, brainstorming, conceptual-block busting and other creativity and problem-solving activities.

INOV 2010: Innovation Team: Analyze and Report
Date: Spring 2017
Description: Sophomore level course emphasizing team projects, research, analyzing data, and reporting.
Client: Katherine Clanton | abovetherestservicesinc@gmail.com
Scope of Work: Assist Ms. Clanton in further developing her liquid dispenser system inventions through further developing the product concept by prototyping and conducting company re-branding.
Outcome:
The team identified a target market through the use of extensive surveys, furthered the product design with written product concepts and 3-D printed prototypes, drafted patent

literature, created a pitch script, developed a company logo, and developed a website for the company.

INOV 2100: Technical Writing, Proposals, & Presentations
Date: Fall 2017
Description: Addresses five major types of technical writing: project reports, funding proposals, magazine and trade articles, technical reports, and journal articles.

BLAW 2010: Business and Intellectual Property Law
Date: Spring 2019
Description: Examines the legal significance of ideas, innovations, and start-up organizations with a focus on intellectual property, including patents, copyrights, and brand protection.

INOV 3010: Innovation Team: Research and Execute
Date: Spring 2018
Description: Junior level continuation of the teams course sequence with advanced participation in team projects including research, design, and execution.
Client: Caroline Savanna | New Horizons Foundation | 719-260-1213
Scope of Work: The team continued building the functional prototype for a video game designed to help sick people get well by using a guided imagery video game that will help people to visualize their body's immune system fighting illness. Upon its completion, the prototype was to be presented to a professional game studio for continued development and eventual release.
Outcome: The team made a fully functioning prototype that visually appealed to cancer patients of all ages, created a more relatable atmosphere and ultimately created a more enjoyable game to play by designing a full basic tutorial level that included music, sound effects, menus, character art, and a storyline with continued development in mind.

INOV 4010: Innovation Team: Design and Lead
Date: Fall 2018
Description: Senior level continuation of the teams course sequence with emphasis on design and leading team projects.
Client: Keith Neil | Champlain Tours | champlaintours@outlook.com
Scope of Work: Create a functioning application prototype for the client's customer to use during travel tours and to grow the company by increasing web presence through search engine optimization with an emphasis on social media and marketing.
Outcome: The app team created a functioning application from a wireframe prototype and the SEO team delivered research to create how-to guides for social media, created social media posts, created logo designs, developed logo prototypes, and made company advertisements.

ENTP 4500: Entrepreneurship and Strategy
Date: Spring 2020
Description: Includes understanding the entrepreneurial process, assessing opportunities, selecting a start-up team, financing entrepreneurial ventures, writing and presenting

business plans, and new venture and competitive strategy while utilizing lectures and case studies as well as coaching teams in the creation of a business plan and public presentation for an innovative new business or nonprofit organization.

Computer Science Major Courses

INFS 1100: Microsoft Office Applications and Computer Basics
Date: Fall 2016
Description: Focus is on the use of Microsoft Office (Excel, Word, PowerPoint, Access, and Outlook), as a tool for analyzing, documenting, and presenting information.

QUAN 2010: Business Statistics
Date: Fall 2016
Description: Includes descriptive statistics, probability distributions, sampling theory, estimation, hypothesis testing, and simple and multiple regression.

CS 1150: Principles of Computer Science
Date: Spring 2017
Description: Develops proficiency for programming in a modern programming language and introduces the concepts of abstraction in problem solving by including basic concepts of computer systems and environments including debuggers, editors, and file systems.

GDD 1200: Introductory Programming for Game Developers
Date: Spring 2017
Description: Introduction to programming in the context of game development where students design, implement, and test various games and game components.

CS 1450: Data Structures and Algorithms
Date: Fall 2017
Description: Concepts of data type, data abstraction, and data structure.

CS 2060: Programming with C
Date: Fall 2107
Description: A first course in the C programming language for those who are proficient in some other high level language.

CS 2080: Programming with UNIX
Date: Spring 2018
Description: An introduction to the UNIX operating system with an emphasis on the development of C and command shell programs.

MATH 2150: Discrete Math
Date: Spring 2018
Description: Introduction to most of the important topics of discrete mathematics, including set theory, logic, number theory, recursion, combinatorics, and graph theory with an emphasis in mathematical proofs.

CS 2160: Computing Organization and Assembly Language Programming
Date: Fall 2018
Description: Introduces the concepts of computer architecture, functional logic, design and computer arithmetic.

CS 2300: Computational Linear Algebra
Date: Fall 2018
Description: Covers mathematical as well as computational aspects of Linear Algebra by applying Vectors, Matrices, 2D, 3D, and ND Transforms and Graphics, Systems of Linear Equations, Eigenvalues/ Eigenvectors, Numerical Stability, and Linear Filters/Predictors.

CS 3050: Social and Ethical Implications of Computing
Date: Fall 2018
Description: This class will discuss selected topics in ethical, social, political, legal and economic aspects of the application of computers.

CS 3020: Advanced Object Technology Using C#/.Net
Date: Spring 2019
Description: C# class construction principles, delegates, threads, event handling, GUI components, observer pattern, standard collections, generic parameters, enumerators, custom components, UML representation, abstract classes, interfaces, object persistence, remoting, and refactoring.

CS 3060: Object Oriented Programming with C++
Date: Spring 2019
Description: The principal goals of this course are: 1) to learn the fundamentals of object-oriented programming, 2) to gain skill and proficiency in using the C++ programming language, 3) to exercise the C++ language in implementing a moderate sized software system designed with objects.

CS 3910: System Administration and Security
Date: Spring 2019
Description: Covers the installation and configuration of mainstream operating systems, important network services, disaster recovery procedures, and techniques for ensuring the security of the system.

CS 4220: Computer Networks
Date: Spring 2019
Description: Course focuses on the basic network and protocol concepts and principles with practical hands-on exercises on network management, network programming, and network planning through the use of industry simulators.

CS 3160: Concepts of Programming Languages
Date: Fall 2019
Description: 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 I
Date: Fall 2019
Description: Software engineering methodologies with an emphasis on the design, development and implementation of a software system.

CS 4200: Computer Architecture I
Date: Fall 2019
Description: 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 4420: Database Systems I
Date: Fall 2019
Description: Course introduces general database concepts as well as database system technology by covering ER and R data models, R-algebra, SQL, data storage and indexing, query optimization, database design and security.

CS 4500: Operating Systems I
Date: Spring 2020
Description: Introduces concepts, terminology, and algorithms of operating systems.

CS 4700: Computability, Automata, and Formal Languages
Date: Spring 2020
Description: Finite automata and regular expressions, context-free grammars, context-free languages, and pushdown automata, Turning machines, undecidability, the Chomsky hierarchy of formal languages, computational complexity and intractable problems.

CS 4720: Design and Analysis of Algorithms
Date: Spring 2020
Description: Covers design methodologies including divide-and-conquer, exhaustive search, dynamic programming, time and space complexity measures, analysis of algorithms for important algorithms for searching, sorting, graph manipulation.

SKILLS AND COMPETENCY

Technical Skills

- Over 3 years experiences in programming languages C, C#, Java, and C++
- Introductory knowledge in Python programming language
- Knowledgeable in the use of the Unix/Linux Operating Systems

- In-depth use of Windows Operating Systems
- Experience working with Weebly, WordPress, and Wix website development platforms
- Experience using SQL databases
- Experience working with HTML, CSS, and Bootstrap for web development
- Project experience working with phpMyAdmin and PHP
- Advanced skills in Microsoft Office programs
- Over 3 years experience working with GitHub software development platform
- Experience working with Virtual Machines using VMware and Oracle VM VirtualBox

Personal Skills

- Determined
- Detailed Oriented
- Results Driven
- Teamwork
- Dependable
- Willing to Learn

COMMUNITY INVOLVEMENT

Volunteer High School Cross Country Coach

- Duties include mentoring, guiding, and supervising high school athletes during practices and competition meets. I also was chosen to create and co-maintain the website and am responsible for ongoing website management including updating, fixing, and adding content.

Volunteer High School Track & Field Coach

- Duties include mentoring, guiding, and supervising high school athletes during practices and competition meets. I also was chosen to create and co-maintain the website and am responsible for ongoing website management including updating, fixing, and adding content.

AWARDS AND RECOGNITIONS

President's List
Description: Must have a GPA of 3.50 or greater
Dates Recognized: Fall 2016, Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, Spring 2020

UCCS Mountain Lion Honors
Description: Required cumulative 3.50 GPA
Dates: Fall 2016 – Spring 2020

Schuman Scholarship
Description: The Schuman Scholarship is for full-time students pursuing a degree in Business, Engineering and Applied Science, or entering the Teacher Education, Alternative Licensure or Distributed Studies Special Education Programs, or be majoring in approved teacher certificate degree in LAS. Student must demonstrate financial need by submitting the FAFSA and have a minimum 3.0 cumulative GPA to qualify.
Date: 2018-2019

Jensen Engineering Scholarship
Description: The Owen E. "Juice" Jensen Scholarship is for undergraduate students enrolled in the College of Engineering and Applied Science, at the University of Colorado Colorado Springs. Students will be in their junior or senior year.
Date: 2019-2020

REFERENCES

Erin Gabriel
(316) 371-2914 | egabriel@wpsdk12.org
Current Job Title: English and ESL Teacher at Woodland Park High School and Track & Field Coach for Woodland Park High School 2018-Current

Sean Chen
(720) 841-0187 | schen@uccs.edu
Current Job Title: Student at University of Colorado Colorado Springs 2016-Current

Matt Ellison
(303) 947-3241 | m@mattellison.me
Current Job Title: Junior Software Engineer at TravelStorysGPS 2017-Current