# Itzel Gonzalez | Software Engineer

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#### **SKILLS**

Software

#### Programming

#### Experienced in:

- Java, Python, C++, C
- Data Structures and Algorithms
- Time Complexity and Efficiency Acquainted with:
- UI Development: JavaScript, CSS, HTML, React.js, iOS, C#
- Objected Oriented Programming
- Dynamic Programming
- Unit Testing Methods
- · Data Science: Pandas Library, NumPy, Matplotlib, SQL
- Refactoring, Debugging
- Design Patterns, UML Diagrams
- Terminal, Vim

- · Version control, Git and GitHub
- Creation of high quality, well-tested and well documented code.
- Software-Hardware Interactions
- Finite State Machines

### MATLAB Organizational

· Firebase

- Project Management
- Agile Software Development
- · Technical Writing
- · Facilitating Meetings Burndown Charts
- Kanban

#### **EDUCATION**

#### University of California, Riverside

**COFEM Scholarship** 

Chicano Latino Alumni Award

Gene Haas Foundation Award

Latina Leadership Network

Tim Suel Memorial Award

Video Game Design: Unity

B.S. Computer Science

Aug 2018 - Dec 2020

Nov 2018

Nov 2018

May 2018

Mar 2018

Mar 2017

Graphic Design: Adobe InDesign, Illustrator, and Photoshop

· Mobile Application Development: Android Studio, Figma, Adobe XD

## Ventura/Moorpark Community College

A.S. Math, Physics

**AWARDS** 

#### **EXPERIENCE**

Riverside County of Health Informatics: Front End Developer/Project Manager Riverside, CA Nov. 2019 - June 2020

- Developed UI and back-end data analysis tools using python libraries such as Pandas and NumPy.
- Adhered to client specifications, translated requirements into technical design while meeting deadlines.
- Performed full cycle development from design to delivery and maintenance.
- Promoted to project manager, helped facilitate meetings, and brought my team together under pressure.
- 2019 Challenge Merit Award recipient.

#### Bourns College of Engineering: Computer Science Peer Mentor Riverside, CA

Sep. 2019 - June 2020

- Mentored incoming transfer engineering students, provided active guidance to help them achieve their goals.
- Developed improvement strategies, made recommendations and encouraged professional development.
  - Public speaker at in person and online events for hosted mentees.
  - Designed flyers, illustrated daily motivational artwork and monitored student lounge.

#### Casa De Soria: Hostess Ventura, CA

July 2017 - Aug. 2018

- Helped to coordinate front and back of house restaurant operations.
- Worked with a team to serve guests in a fast-paced customer service environment.

#### Ventura College Tutoring Center: STEM Tutor Ventura, CA

Nov. 2016 - Aug. 2018

Dec. 2014 - July 2015

- Certified tutor in Algebra, Trigonometry, Calculus, and C++, private and group tutoring.
- Eventually started own tutoring business using Square payment processor.
- Adapted to different learning styles, taught in Spanish, as well as students with learning disabilities.

#### Mended Hearts Ventura Website: Web Developer Ventura, CA

- In high school, created an informational website mendedheartsventura.wordpress.com for heart surgery patients under Ventura Chapter of Mended Hearts.
- Designed user interface, set up domain, formatted content, and maintained website.

## Ventura College Coding Club: Co-Founder

**EXTRACURRICULAR** 

- Established coding club on campus, provided learning workshops, and recruited quest speakers.
- Encouraged women to pursue careers in engineering and computer science.

#### Cougar Press: Graphic Design Editor & Spanish Section Manager

- Edited newspaper using Adobe InDesign
- Worked in a high stress environment to publish weekly content.

CS 100 Software Construction

CS 120B Intro to Embedded Systems

CS 141 Intermediate Data Structures

CS 111 Discrete Structures

CS 130 Computer Graphics

CS 105 Data Analysis Methods

CS 152 Compiler Design

CS 180W Technical Writing

CS 120A Logic Design

Conducted interviews to survey for stories.

**COURSEWORK** 

CS 161 Design & Architecture of Computer Systems

CS 150 Automata and Formal Languages CS 153 Design of Operating Systems

## **PROJECTS**

## Unity Video Game, Senior Design

Jan. 2020

- Developed 2D platformer, storytelling game using Unity depicting the life of a computer science student.
- Responsible for level design, user interface, user experience, melodies and character sound effects.
- Researched classic video game map designs to create game levels from scratch.
- Designed game main menu, options menu, win/loss screens, level transitions, HUD (power-ups and life count).
- Coded distinct sound effect scripts in C# for character movements, power ups, weapons and enemies.
- Used GarageBand to create melodies for each level of the game.
- Kept detailed track of team progress and individual responsibilities using Scrum development framework.

#### CSync<sup>™</sup> Mobile Application, Rose Hackathon

Jan. 2019

- Created Android application enabling users to sync their hand-written events to Google Calendar.
- Developed prototypes for UI flow and developed front-end using Android Studio and Adobe XD.
- Designed home screen allowing users to create new account or login with Facebook, Google or LinkedIn.
- Managed team and led app development, made sure everyone stayed on task.
- Added website for app www.csync.xyz detailing how it works in a concise video run through of each feature.

## Smart Tank v.1.0, Citrus Hackathon

Apr. 2019

- Performed climate control on pet tanks to ensure proper conditions using various hardware components.
- Researched schematics to wire breadboard that would power pet tank climate control system.
- Aided software development of closed-loop feedback system between fan, temperature and humidity sensor.
- Winner of Best Use of Hardware Award.

#### Catch Gold Bars Game, Embedded Systems Project

June 2019

- Random bars appear from the top of the Nokia 5110 LCD screen and fall down.
- User must press the corresponding button of each column at the correct time to gain points.
- The score will be tracked using golden LEDs. If they miss 3 times, they lose!
- Additional features include using the joy stick to navigate menu and start a new game.
- Game logic is driven by Atmel micro-controller and structured as a synchronous finite state machine.

#### **ONLINE CERTIFICATIONS**

Graphic Design, University of Colorado Boulder UI/UX Design, Cal Arts (In Progress) Full Stack Web Development (In Progress)

#### CS 171 Intro to Machine Learning CS 173 Natural Language Processing CS 175 Entrepreneurship in Computing

- CS 179 Graphics and Electronic Games CS 124 Formal Logic