

LIZETH CHAVEZ

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EDUCATION

The University of Texas Rio Grande Valley – Edinburg TX May 2026
Master of Science, Major in Computer Science

The University of Texas Rio Grande Valley – Edinburg TX May 2024
Bachelor of Science, Major in Computer Science 3.5 GPA

- Extracurricular: Honors College, Dean's List, Frontera Devs
- Relevant Courses: Algorithms and Data Structures, Object Oriented Programming in Java, Software Engineering, Web Development, Databases Design, Digital Image Processing

SKILLS

Technical: Advanced: Python, C++ Intermediate: Java, SQL, HTML, CSS Beginner: React, Flutter
Technology: Advanced: Git, Figma, Visual Studio, PyCharm Intermediate: Microsoft Office, Android Studio
Interdisciplinary: Software Development, Agile Methodologies, Project Management, Graphic Design
Languages: Fluent: English and Spanish

EXPERIENCE

Traffic Designer Intern, Traffic Operations, City of McAllen, TX May 2024 – July 2024

- Conducted comprehensive research, data analysis, and quality assurance for urban lighting projects, optimizing placement and efficiency using GIS software, Eris, for mapping and location intelligence, and Google Earth Pro for geospatial analysis.
- Enhanced documentation in Excel for easy navigation of parameters, streamlining future intern onboarding and improving project tracking for studies organization, speed humps, and streetlights. Kept track of past and future requests, including payment status and request parameters.

Web Dev Bootcamp Instructor, Galaxy VR, Edinburg, TX May 2024 – July 2024

- Coordinated logistics, including session structure, breaks and award ceremony to foster collaboration and peer learning through group activities and interactive projects
- Designed and implemented a 3-day curriculum, focusing on HTML, CSS, Bootstrap and Figma for a group of 20+ high school students.
- Created and managed classroom materials and resources, including Google Classroom and Kahoot quizzes

PROJECTS

Bitcoin Calculator App (Software Engineering II) Spring 2024

- Developed a mobile application in Dart with Flutter framework for high performance frontend UI development to perform currency conversions between Bitcoin and USD
- Applied Agile Pair Programming technique in a remote environment through the live share feature in Visual Code to reduce completion time by 24 hours
- Implemented unit and integration tests with sad and happy paths for API integration that fetched real-time Bitcoin price rate utilizing Mockito to mock an HTTP client

CV Color Filtering Spring 2024

- Developed a real-time color detection application using C++ and OpenCV, a computer vision library
- Implemented hue, saturation and value (HSV) color space conversion and video input from a webcam for live color detection
- Created a graphical user interface with trackbars for dynamic color filtering parameter adjustment

Digital Image Processing Spring 2024

- Developed a Python script to perform image processing tasks on lung CT images using OpenCV and NumPy libraries demonstrating proficiency in handling and manipulating image data
- Loaded and displayed grayscale CT scan images, visualizing their magnitude spectrum and phase shifts using Matplotlib
- Implemented image down-sampling and interpolation techniques, including Fourier domain operation and scipy functions

M&N Jewelry Website (Web Development)

Fall 2023

- Developed a web application for a local jewelry shop using Node.js and Express.js for the backend infrastructure and React.js for the frontend to display their products.
- Integrated a user-friendly interface with intuitive navigation for seamless browsing through a visually appealing banner and border effects utilizing advance CSS and Bootstrap styling techniques
- Established a secure connection to an SQLite database to manage and display jewelry

Seek Adventure App (Object-Oriented Programming in Java)

Spring 2023

- Developed a mobile app in Java using Android Studio for documenting travel experiences, enabling users to create, view and manage journals entries through an interactive travel log feature
- Collaborated with team members to design and implement user interface components and navigation flows utilizing Canva
- Implemented search functionality using Realtime Firebase queries to filter journal entries based on user input and journal entry creation and viewing functionalities using RecyclerViews and ViewHolders

VOLUNTEERING**Undergrad Research Assistant, UTRGV**

December 2023 – Present

- Developed and trained a deep learning model utilizing PyTorch framework to improve the semantic segmentation performance on CT lung scans from different medical centers by adding an attention mechanism. Performed data preprocessing using the Nibabel library for array conversions, model training with fully convolution network including the dice loss and conducted a result analysis

Frontera Devs, Co-President

January 2023– Present

- Organized the inaugural hackathon Frontera Hacks through community engagement by securing 100+ attendants, enhancing social media engagement content and increasing followers by 1.2x and designing inclusive hackathon flyers using Figma for 700+ members
- Spearheaded 4 professional growth panels with UI/UX designers, Software Engineers and App Developers

CERTIFICATES

- Project Management Certificate, UTRGV, 2023
- Dual Language Graduate, Bilingual and Biliteracy Seal, PSJA ISD, 2022
- IC3 Digital Literacy Certification, PSJA Thomas Jefferson TSTEM ECHS, 2019
- Microsoft Office PowerPoint 2016, Specialist Certification, PSJA Thomas Jefferson TSTEM ECHS, 2019
- Microsoft Office Word 2016, Specialist Certification, PSJA Thomas Jefferson TSTEM ECHS, 2019

AWARDS

- Greater Texas Foundation Scholar, UTRGV, 2022
- Pharr Foundation Award, City of Pharr, 2022
- Pharr EDC Foundation Award, City of Pharr, 2022
- BPA Scholar, Business Professional of America, 2022
- UTRGV Meritorious Scholar, UTRGV, 2021