JESSICA LIU

Programmer & Illustrator

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EDUCATION & SKILLS

UNIVERSITY OF TEXAS AT AUSTIN – Austin, TX

Bachelor of Science, Computer Science, May 2025

Relevant Coursework
- Operating Systems, Computer Organization & Architecture, Discrete Math,Statistics & Probability, Multivariable Calculus, Data Structures, Discrete Mathematics, Linear Algebra, Machine Learning, UI/UX Design

TOOLS & TECHNICAL SKILLS
- **Tools:** Visual Studio Code, Unity, Autodesk, Tinkercad, Blender, Gimp, Da Vinci Resolve, Photoshop, Inkscape, Adobe After Effects, Adobe Animate, Adobe Premiere, Microsoft Word, Excel, PowerPoint, Python, Java, C#, C, HTML, CSS, JavaScript, SQL
- **Foreign Language:** French

AWARDS
- Houston Livestock Show & Rodeo Best of Show Artist 2017, 2018, 2020, 2021
- Congressional Art Winner 2019
- National Merit Finalist 2021

PROFESSIONAL EXPERIENCE

SOFTWARE DEVELOPER

Benchmark Labs, June 2022 – August 2022
- Designed, maintained & engineered a sensor-based machine that tests the quality of petroleum and chemicals that reduce wax.
- Developed applications in Python to automate the data capture & calculation of petroleum chemicals by generating graphic data visualization reports for the company clients.
- Collaborated closely with other programmers & chemical engineers to produce accurate results.

COMPUTER ARCHITECTURE TEACHING ASSISTANT

University of Texas at Austin Computer Science, January 2023 – Present
- Instructed a section of 20 students to provide a better understanding of C, assembly code, and pipelining weekly.
- Worked closely with the instructor to prepare students for class content & exams and aided students in debugging code.

FASHION DESIGNER

BLKPWRC - Black Power Clothing, May 2021 – Present
- Closely collaborated with the fashion brand to create clothing line designs based on racial equality as well as vendors to ensure quality of fabric and ink.
- Translated complex and meaningful concepts into compelling designs for clothes.

CHARACTER DESIGNER & ILLUSTRATOR

The Kobold Press, April 2021 – December 2021
- Designed and created characters for Kobold Press's Empire of Ghouls - Dungeon & Dragons campaign.
- Worked closely with entertainers to create character designs according to their vision and personality with a quick turnaround time.

2D ANIMATOR & VIDEO EDITOR

Jasmine "ThatBronzeGirl" Bhullar, May 2022 – October 2022
- Created and animated compelling animations and assets to engage Jasmine Bhullar's live stream audience with Adobe AE and frame-by-frame animation.

PROJECTS

PINTOS DEVELOPMENT - *August 2022 – December 2022*
- Expanded a toy OS to include priority scheduling, argument passing on the stack, system calls for user programs, virtual memory, and converted the existing single-thread file system into an multilevel indexed file system.

HUFFMAN ENCODER ALGORITHM - *November 2021 – December 2021*
- Independently developed a program that losslessly compresses and decompresses files.

FIREFLY UNITY GAME DEVELOPMENT - *Project Leader & Programmer, September 2020 – April 2021*
- Lead development of 3D open-world game where players are a firefly; coded in C#.
- Implemented the 3D physics engine, ray-tracing mechanics, lighting system, and third-person player controls.
- Built an AI NavMesh system onto map to incorporate Enemy AI for scaling the difficulty throughout the player life cycle.
- Designed characters for 3D modeling and animation along with on-brand and creative artwork.

TO SAVE A SOUL - CREATE WITH CODE UNITY JAM - *October 2020*
- Cooperated with international programmers and game developers to create a top-down isometric game in 3 days about Greek myths; coded enemy ray-tracing detection and player controls in C#.
- Created player and enemy animations, tile sets, background assets, and screens.

EXTRACURRICULARS

D.I.V.E (DISCOVERY, IMMERSION, VISUALIZATION, & EXPERIENCES) - *Member, September 2022 - Present*
- Explored ways to engage audiences with immersive experiences along with like-minded individuals.
- Created AR filters using SparkAR.

ELECTRONIC GAME DEVELOPERS SOCIETY - *Member, April 2021 - Present*
- Participated in open-source game projects with hundreds of other programmers and game jams.
- Developed free tile-sets & character animations for members to use.

CURRENT CHANGE - *Lead Programmer & Website Developer, July 2020 - July 2021*
- Developed & designed a credible research website regarding current issues with a team of writers and junior programmers.
- Used HTML, CSS, & Inkscape to design website features to be clean & appealing to readership.