Jasmine Nelson

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Dedicated computer science graduate with a variety of full-stack development, systems administration, and technical writing experiences. My skills lie in software engineering, testing and verification, data analysis, and innovation of next generation platforms.

WORK EXPERIENCE

Software Systems Engineer — NASA JPL

JUNE 2022 - PRESENT | PASADENA, CA (REMOTE)

- Developed JPL's ProtoSpace in VR for the Oculus Quest 2 on a scrum team
- Enhanced usability and implemented features for XR platform using Unity (C#)
- Built custom VR hand gesture recognition system for the Quest infrared cameras
- Integrated the Interaction SDK, enabling users to interact with the 3D CAD models

Software Engineering Intern — NASA GRC

JANUARY 2022 - JUNE 2022 | CLEVELAND, OH (REMOTE)

- Optimized NASA's Glenn-HT GUI backend code using ASP.NET Core MVC
- Developed full-stack tools/features for the GUI using Unity (C#) and Python
- Implemented comprehensive unit tests, improving test coverage by 28%
- Wrote and implemented an algorithm that utilizes matrices to perform translations and rotations on complex CFD grids based on a user-defined axis and angle
- Applied version control software (GitLab) to track, test, and update code

Undergrad Software Developer — John Carroll University

AUGUST 2021 - DECEMBER 2021 | UNIVERSITY HEIGHTS, OH

- Built a WinForms desktop app using .NET framework and C# on an agile team
- Utilized ProWritingAid API and MS Office API to extract, parse, and process text
- Crafted algorithm to validate spelling, grammar, context, and format for text/video
- Developed framework for automated text analysis, improving efficiency by 65%
- Increased data storage and retrieval efficiency by integrating a MySQL database

Software Engineering Intern — NASA GRC

JUNE 2021 - AUGUST 2021 | CLEVELAND, OH (REMOTE)

- Refined CFD simulation efficiency for NASA's Glenn-HT GUI using Unity (C#)
- Migrated existing GUI functionality from Java implementation to .NET
- Improved algorithm for multi-blade grids, cutting processing time by 40%
- Developed an algorithm to programmatically merge CFD grid and mesh files
- Collaborated with key stakeholders to ensure NASA-compliant code/design

IT and Data Intern — Breakthrough Schools

SEPTEMBER 2019 - JUNE 2021 | CLEVELAND, OH

- Maintained user accounts with Google Admin, Exchange Admin Center, and PowerSchool, ensuring access for students and staff to critical systems/resources
- Harmonized data between Active Directory, Ultipro, and the access control system
- Wrote and published 100+ intranet articles on public relations, user guides, and internal communications using WordPress, HTML, CSS, and JavaScript

IT Tech Squad Intern — Breakthrough Schools

JUNE 2019 - SEPTEMBER 2019 | CLEVELAND, OH

- Collaborated to configure/deploy 1,400+ iPads with Mosyle and Apple School
- Served on a team to powerwash, enroll, and label 5,000+ Chromebooks
- Replaced iPad screens/digitizers and repaired Chromebook and Asus laptop screens/keyboards, saving over $8,000 in equipment costs

EDUCATION

John Carroll University

Bachelor of Science in Computer Science

AUGUST 2018 - MAY 2022

Major GPA: 4.0 / 4.0 • **Cumulative GPA:** 3.9 / 4.0

Coursework: Web Design & Image Processing, Machine Learning, Database Systems, Cloud Computing, Object-Oriented Programming

TECHNICAL SKILLS

Languages: Java • C# • Python • R • GraphQL • JavaScript • TypeScript • SQL • C/C++ • PHP

Frontend: HTML • CSS • React • Angular

Backend: Express.js • MySQL • Django • Flask

Tools: Unity • Node.js • MongoDB • Docker • Git/GitHub • JUnit • Figma • AWS • GCP

Development: Object-Oriented Design • Unit Testing • CI/CD • 3D Graphics • REST API • Network Programming • UI/UX Design

SOFT SKILLS

Interpersonal: Creativity, Teamwork, Time Management, Communication, Organization

Languages: English, Chinese (Mandarin)

PROJECTS

E-commerce Website Spring 2022
Built a responsive website using MERN stack as part of the Black Wings Hacks 2022 hackathon

Student Planner App Spring 2021
Developed a web app to help students maintain organization using Python, Flask, HTML, CSS, SQLAlchemy, and the Canvas LMS REST API

Desktop Chat App Fall 2020
Built a Java UDP client/server messaging app using Swing, Apache Commons Codec, and AWS

"Mirror Reflection" Game Spring 2020
Worked as part of a team to develop a single-player 2D puzzle platformer using Unity (C#)

Hunan Coventry Website Fall 2018
Created a dynamic website for a local restaurant using HTML, CSS, JavaScript, and jQuery