Syed Mohammad Huzaif

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EXPERIENCE

Orchardly   Srinagar, Jammu and Kashmir, IN
Junior Backend Developer   1 Jan 2025 - Present

Developing the backend for a scalable e-commerce platform using Laravel, designing and implementing RESTful APIs to support seamless integration with frontend systems and third-party services.

Collaborated with a senior developer to redesign the database schema, optimizing performance, scalability, and data integrity to accommodate complex agricultural product workflows and high transaction volumes.

Modernized application architecture by introducing Data Objects and Action Patterns, decoupling business logic from controllers and enhancing code maintainability, testability, and scalability.

Yarikul Infotech   Srinagar, Jammu and Kashmir, IN
Software Development Intern   20 Nov 2024 - 31 Dec 2024

Developed a small E-commerce platform using PHP, Laravel and SQLite

EDUCATION

University of Kashmir   Jammu and Kashmir, IN
Full-time Bachelor of Technology in Computer Science and Engineering   Nov 2020 - Oct 2024
GPA: 8.41

Sri Pratap Higher Secondary School   Jammu and Kashmir, IN
Senior Secondary   Nov 2017 - Dec 2019
Percentage: 78.2%

JK Public School   Jammu and Kashmir, IN
Secondary   Completed - Oct 2017
Percentage: 82.6%

SKILLS

Languages: Python, C, Java, Javascript, HTML, CSS, PHP, Laravel, Shell scripting
Tools / Platforms: Git, GitHub, AWS Elastic Beanstalk, AWS S3, Linux
Database Technologies: MySQL, SQLite, MongoDB

PROJECTS / OPEN-SOURCE

Automata Weaver | Link   *JavaScript, HTML, CSS*

- Developed an open source online graphical tool and simulator for Finite automata, Pushdown automata and Turing machines.
- Implemented features such as minimization of DFAs, convertion from NFA to DFA, and generation of DFA/NFA from regular expressions.

Physics Simulator | Link   *Java*

- Developed a 2D physics simulator in Java.
- Implemented various physics concepts such as gravity, collision detection, and friction.
- Created a user interface for visualizing the simulation.
- Added features for adjusting simulation parameters in real-time.

Data Compression Tool | Link   *C*

- Built a data compression tool using Huffman coding in C.
- Implemented algorithms for encoding and decoding data.

- Designed a command-line interface for user interaction.
- Achieved significant reduction in file sizes for various types of data.

nn-c | <u>Link</u> *C*

- Developed a small neural networks builder and visualizer using C and raylib.
- Implemented basic neural network operations such as forward propagation and backpropagation.
- Created a graphical interface for visualizing the network structure and training process.

Category Tree Renderer | <u>Link</u> *Python*

- Created a tool in Python for generating and rendering random category trees using graphViz.
- Implemented algorithms for random tree generation.
- Integrated graphViz for visual representation of the trees.
- Added options for customizing tree properties such as depth and branching factor.

Conway's Game of Life | <u>Link</u> | <u>Website</u> *JavaScript, HTML, CSS*

- Developed a web-based simulator for Conway's Game of Life using JavaScript, HTML, and CSS.
- Implemented the rules of the game and optimized the simulation for performance.
- Created an interactive user interface for setting initial conditions and controlling the simulation.

Image filters visualizer | <u>Link</u> | <u>Website</u> *JavaScript, HTML, CSS*

- Built a web app for experimenting with image filters using JavaScript, HTML, and CSS.
- Implemented various image processing algorithms such as blur, sharpen, and edge detection.
- Created an interactive interface for applying filters.
- Added support for uploading and processing user images.

Snake Game | <u>Link</u> *Java*

- Developed the classic snake game in Java with MongoDB connectivity for high-scores.
- Implemented game mechanics such as snake movement, food generation, and collision detection.
- Created a graphical user interface for the game.
- Integrated MongoDB for storing and retrieving high scores.

Minesweeper in python | <u>Link</u> *Python*

- Created a classic Minesweeper game with a dark theme in Python.
- Implemented game logic including mine placement, number calculation, and win/loss conditions.
- Added features for different difficulty levels and a timer.

Play with Spirographs | <u>Link</u> *JavaScript, HTML, CSS*

- Developed a simple simulator for animating spirographs using JavaScript, HTML, and CSS.
- Implemented algorithms for generating spirograph patterns.
- Created an interactive interface for adjusting parameters such as radius and speed.
- Added options for saving and exporting generated patterns.