

Hemant Singh

Mohali, Punjab | +91 9927656409 | hs2hemantsingh@gmail.com

[LinkedIn](#) | [GitHub](#) | [Portfolio](#)

EXPERIENCE

MHK Chasis Pvt Ltd

May 2025 - June 2025

IT Intern (Remote)

- Built **MERN** stack web applications with JWT-based authentication.
 - Designed and implemented RESTful APIs using Node.js and Express.js.
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PROJECTS

Brain Tumor Segmentation Model | [Model](#) | [Demo](#)

- Built a **multi-class semantic segmentation model** for glioma detection on 2D axial MRI slices using **BraTS 2020** dataset.
- Designed a **hybrid U-Net** architecture combining a ResNeXt50 encoder, Transformer bottleneck, ASPP module, and attention-gated skip connections.
- Implemented a full preprocessing pipeline: 3D Z-score normalization, axial slicing, intensity clipping, resizing, and extensive geometric + intensity augmentations.
- Deployed on **Hugging Face**.

LANStream — A fast, local network streaming server and application for sharing media across devices in a LAN.

- Developed a media streaming server using **Python** and **Flask** for the backend.
- Built a user interface with **React** and **DASH** to provide a seamless streaming experience.
- [GitHub](#) | [Overview](#)

Markdown Notes — A simple markdown note taking web app.

- Built a full-stack web application using React.js, Node.js, Express.js and MongoDB.
 - [GitHub](#) | [Live Demo](#)
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SKILLS

Languages: JavaScript, Python, C++

Technologies: React.js, Node.js, Express.js, Flask, MongoDB, PostgreSQL

EDUCATION

University Institute of Engineering and Technology,
Panjab University

2023 - 2027

Bachelor of Engineering in Computer Science and Engineering

OTHER INTERESTS

Art | Video Games