

# Ayush Ranjan

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## Skills

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**Languages:** Java, Python, C++, C, JavaScript

**Technologies:** React.js, TensorFlow, PyTorch, Bootstrap, TailWind, DialogFlow, ComfyUI, Stable Diffusion, LoRA, PyTorch, TensorFlow, OpenAI API

**Concepts:** Compiler, Operating System, Generative AI, Machine Learning, Deep Learning, Neural Networks

**Creative Skills:** 3D Animator(Blender), 3D Graphics(Blender 3D) Designer, Game Designer(Unity HUB), Video Editor(Davinci Resolve / VITA)

## Experience

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### Adversarial Nibbler Challenge

October 20 – Jan 2025

Google Research (Paid)

Remote

- Submitted 300+ adversarial prompts within 12 weeks, consistently ranked among the top contributors.
- Identified and documented 100+ unique safety vulnerabilities, enhancing AI safety measures.

## Projects

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### 🌀 LoRA Fine-Tuning for Stable Diffusion | Python, ComfyUI, Stable Diffusion, PyTorch, Hugging Face

- Trained a **Low-Rank Adaptation (LoRA)** model for fine-tuning Stable Diffusion on a custom dataset, improving image generation quality.
- Developed **custom ComfyUI workflows** to optimize and deploy LoRA-trained models, enabling real-time image synthesis.
- Optimized training on **low VRAM (GTX 1650 4GB)** by implementing **memory-efficient techniques** like xFormers.

### 🌀 Conversational Data Insights & NLP-based WhatsApp Chat Analyzer | NLP, Matplotlib, Seaborn, Pandas

- Processed & analyzed 100,000+ messages from 10+ group chats, using NLP, regex parsing, and pandas to extract insights.
- Automated 10+ interactive data visualizations (Matplotlib, Seaborn) for message frequency, peak hours, active users & sentiment trends.

## Education

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### Lovely Professional University

May 2026

Bachelor of Technology in Computer Science – CGPA: 7.71

Phagwara, Punjab

- **Relevant Coursework:** Data Structures and Algorithms, Machine Learning, Deep Learning, Artificial Intelligence, Object-Oriented Programming, Computer Networks, Soft Computing, Database Management Systems, Operating Systems

## Achievements

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- Awarded first prize in Google Adversarial Nibbler Challenge
- Awarded first prize at a state-level infotech festival and 4th in the National Level Innovation Festival
- Competed in a nationwide AI ML Amazon challenge ranking in the Top 100 with an F1 score of 0.40.
- Achieved global rank 682 in Weekly Contest 437 organized by LeetCode.
- **LeetCode:** Rating-1800+, 400+ problems solved, **CodeForces:** Rating 1250+, 150+ problems solved

## Certifications

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- **Geeks for Geeks - Data Structures and Algorithms (DSA)** Completed 230 hours of intensive coursework focusing on core data structures and algorithms. *June - July, 2024*
- **NPTEL Certification in Cloud Computing (12-week course)** Achieved a score of 68 in a nationally recognized course offered by IITs, including IIT Kharagpur, covering distributed systems, virtualization, and cloud architecture. *July - October, 2024*