MUNEEB AHMAD

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Muneeb's Portfolio
GitHub

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EDUCATION

Jamia Millia Islamia, New Delhi, India — **2021 - Present**

- **Bachelor of Technology in Computer Engineering**
- **CGPA: 8.63**
- **Coursework:** Computer Architecture, Parallel & Distributed Computing, Data mining

WORK EXPERIENCE

Advanced Application Engineering Intern at Accenture, Gurugram, India — **May '24- July '24**

- Worked on Cyber Strategy and Security: Third Party Risk Assessment.
- Conducted InfoSec and Privacy risk assessments of third parties for clients.

AI/ML Intern at Nikah Forever, New Delhi, India — **Jun '23-Aug '23**

- Developed collaborative filtering and content-based filtering algorithms for a best match recommendation system.
- Deployed the recommendation system for a high traffic platform on the public cloud.
- Implemented a CI/CD pipeline by setting up GitHub webhooks, automating the deployment process, which significantly improved development workflow.
- Languages and Tools: Python, Pandas, NumPy, scikit-learn, Implicit-ALS, Flask.

ACHIEVEMENTS

Graduate Aptitude Test in Engineering (GATE) for Computer Science and Information Technology 2024 - Qualified

- All India Rank: **1532**
- **98.76** percentile.

Joint Entrance Examination Main (JEE Mains) 2021

- **97.71** percentile.

2024-25 Football Secretary, FET Sports Council, Jamia Millia Islamia

PROJECTS

Latent Diffusion based Image Inpainting with Multimodal Guidance — **Aug-Dec '24**

- Better image inpainting that can be guided by text prompts, masks, and reference images
- A custom dataset that better matches human expectations when performing inpainting.
- Finetuning the stable diffusion inpainting model on a custom-prepared dataset.
- Reference images are also supported to guide the generated output.
- Languages and more: Python, PyTorch, diffusers.

Vulkan Forward Clustered Renderer — **April '23-Present**

- Forward Clustered Renderer for GLTF Scenes.
- Built to have an easy-to-customize render pipeline.
- Lots of voxel rendering experimentation.
- Languages and more: Vulkan, C++17

Lua Binding Annotation Generator — **June '24**

- Generates Lua annotations and bindings for C++ classes automatically by analyzing the abstract syntax tree using libclang and Python.

Engine-2: Real-time 3-D rendering engine **Oct '21-Present**

- Rendering engine for drawing large amounts of geometry utilizing per cluster culling with hierarchical-z
    - **Sparse Entity Component System:** A data-oriented object storage system (ECS) using sparse arrays.
    - **Asset System:** Memory-efficient storage of large images and 3D models, on-demand loading/freeing resources from disk.
    - **OpenGL abstraction library:** Eases working with OpenGL while retaining low-level control.
- Languages and more: OpenGL, C++17

SKILLS

- **Languages** - C, C++, Python, Java, GLSL, Rust, JavaScript, SQL, Lua
- **Frameworks** – CUDA, Vulkan, OpenGL, PyTorch, Triton, OpenMP, MPI
- **Tools** – RenderDoc, NVIDIA Nsight, Valgrind, Dr. Memory
- **Deployment** – Gunicorn, Nginx, Docker
- **Platforms** - Linux, Windows, Web, Godot