MUNEEB AHMAD

muneeb0ahmed3@gmail.com
Muneeb's Portfolio
GitHub

Delhi, India
+91 828-731-5970

EDUCATION

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

- **Bachelor of Technology in Computer Engineering**
- **CGPA: 8.83 out of 10**
- **Coursework:** Computer Architecture, Parallel & Distributed Computing, Compiler Design

WORK EXPERIENCE

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

- Completed intensive one month training program spanning multiple domains such as cloud computing and artificial intelligence.
- Worked on Cyber Strategy and Security: Third Party Risk Assessment.

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 achieving better results than the existing rule-based system.
- Reduced memory footprint by 50% for deployment on 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

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

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
- Prepared a custom dataset that better matches human expectations when performing inpainting.
- Finetuned the stable diffusion inpainting model on the dataset using inpainting specific loss function.
- Reference images are also supported to guide the generated output.
- Primary Tools: 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.
- Voxel meshing using compute shaders, resulting in 6 times lower draw count
- Built using dynamic rendering for immediate mode GPUs
- Primary Tools: 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 dense 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.
- Primary Tools: 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

References

Dr Mohammad Amjad,

Professor and Head (Department of Computer Engineering)

Faculty of Engineering and Technology

Jamia Millia Islamia, New Delhi

Dr Saif Ali,

Assistant Professor

Faculty of Engineering and Technology

Jamia Millia Islamia, New Delhi