ATHARVA AMEYA PORE

Dearborn, MI | (313) 487-5537 | atharva.a.pore@gmail.com | https://www.linkedin.com/in/atharva-pore

Education

The University of Michigan-Dearborn — Dearborn, MI
Master's in Artificial Intelligence | Expected Graduation: 05/25 — **GPA: 4.0**

Savitribai Phule Pune University — Pune, IN-MH
Bachelor of Engineering in Computer Science | Graduated on: 07/18

Work Experience

Inter-University Centre for Astronomy & Astrophysics (Affiliated to Government of India) — Pune, IN-MH
Software Developer | Data Analyst | Python Programmer — 12/19 — 06/23

- Led development, incorporating **web scraping & data wrangling into the pipeline**, culminating in a 48% reduction in the analysis and visualization process's time. This streamlined approach resulted in significant weekly time savings of 15-20 hours, fostering increased efficiency in data processing and presentation.
- Directed the strategic development of an advanced Big Data Visualization and analysis pipeline, orchestrating a 27% improvement in efficiency specifically tailored to accelerate data analysis and visualization tasks. This initiative streamlines workflows for efficient insights from vast datasets.
- Developed an advanced plot generation module capable of efficiently analyzing and visualizing thousands of data lines, enhancing visualization based on specific attributes. This **resulted in a fivefold improvement in plot generation efficiency.**
- Engineered 4 packages for large satellite data **parallel processing** with **advanced algorithms** for efficient **data analysis and image generation**. Developed a high-performance **big data pipeline**, elevating image generation efficiency by an impressive 65%, showcasing gains through **parallel computing**.

Technical Skills

- **Developer Tools:** Visual Studio, PyCharm, GitHub, Version Control (Git)
- **Data Science Skills:** Data Cleaning, Data Visualization and analysis, Data Modeling
- **Parallel Computing:** GPU programming, Multi-GPU programming, Parallel algorithms
- **Graphics Technologies:** OpenGL, WebGL, CUDA, OpenCL
- **Programming Languages:** Python, R, C, C++, Java, JavaScript
- **High-Performance Computing:** Shared memory, Distributed memory, System Performance

Projects

Multi-Player Game | C, OpenGL, Win32-SDK, DataStructures, Winsock — **YouTube Link**

- Developed and implemented real-time 3D rendering algorithms for screen-space ambient occlusion, audio effects, and object shadows.

Real-time Face & Eye Detection | Python, Machine Learning, Computer Vision — **GitHub**

- Deployed Haar Cascade classifiers for real-time face & eye detection, ensuring precise results in images & videos. Utilizes advanced tech for intricate computer vision and data insights.

Dynamic Background Removal | Python, Computer Vision, Video-Image Processing, NumPy — **GitHub**

- Engineered real-time background removal in Python with GMG, MOG2, and KNN in OpenCV. Seamlessly integrated for dynamic video processing in live applications.

Certifications

- **PCEP Certified Python Programmer** | Python Institute — Completion Month: 02/22
- **Real-Time Rendering (Certificate Course)** | AstroMediComp | Grade: 9.6/10 — 10/18 — 03/20

Publications

- **AstroSat science support cell** — **View Paper**
  Publication: Journal of Astrophysics and Astronomy, Volume 42, Issue 2, article id.28
  Authors: Roy, J.;...; Pore, A. | **Published Year:** 10/21

- **Interactive Projection Using 3D Gesture Recognition** — **View Paper**
  Publication: International Journal of Scientific and Engineering Research, Volume 9, Issue 5
  Authors: Paranjape C.;...; Pore A. | **Published Year:** 05/18