Akash Deep

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EDUCATION

Texas Tech University, Lubbock TX

- *MS Interdisciplinary Studies(CS+Math)*
  AUG 2022 - Present

Courses:

- *BS Applied Physics(Minor: Mathematics)*
  JAN 2018 - MAY 2022

Advanced Courses: Computational Physics,Seismic Methods, Seismic Data Processing (MATLAB), Optics, Mechanics, Statistical/Thermal Physics, Quantum Mechanics I & II, E&M I&II , Higher Mathematics for Engineers and Scientists I & II , Mathematical Statistics.

PROJECTS

Quantum Calculator

- Developed a Python based calculator that is based on a relativistic version of Schrodinger like equation and can show results at ultra-relativistic limits.
- Developed a mobile app to display the plots.

TraderPy

- Created a full stack website that picks up safe stocks for users to buy based on the volatility index and moving averages.
- Improved the algorithm to process data 15% more efficiently from the NASDAQ Data API by implementing tools from Django.

Code Gamma

- Created an open source FPS game based on Unreal Engine 5's Lyra Starter Game.
- Designed the photorealistic game levels and logic for the project.
- Increased the runtime by 25% by optimizing the source code and game logic.

SKILLS

Languages: Python, C, C++, Java
Data analysis: MATLAB, OriginLab, Excel
DBMS: SQL, Hadoop
Web Dev: HTML, Django
Game Engine: UE5
OS: Windows,Linux
Documentation: LaTeX, MS Word

AWARDS

Texas Tech Presidential Scholarship (2018-2022) Awarded to freshmen who show exceptional academic ability.

SOFT SKILLS

Gallup Test: Achiever, Analytical, Ideation, Intellectual, Learner

Languages: English, Hindi, Bengali

RESEARCH

Hodovanets Quantum Materials Lab (Aug 2021-Jan 2022): Worked on the **OriginLab Data Analysis** for synthesis and discovery, characterization, and optimization of novel quantum materials in a single crystalline form.

PUBLICATIONS

[1] Grave de Peralta, Luis, and Akash Deep: "*A Simple Approach for Extending Up to the Ultrarelativistic Limit the Theory of a Non-Relativistic Fermi Gas.*" Available at SSRN 4057250