Aashna Gupta

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Education

Purdue University West Lafayette, IN

Bachelor of Science in Computer Science *Aug 2022- May 2026*

concentration in Machine Learning, minor in Business Economics

Relevant Coursework: Analysis of Algorithms, Artificial Intelligence, Data Structures and Algorithms, Computer Architecture, Programming in C, Java/OOP, Data Engineering in Python, Discrete Mathematics, Statistical Theory/Methods, Linear Algebra, Multivariable Calculus

Technical Skills

Languages: Java, Python, C/C++, C#, HTML/CSS, Assembly x86-64, SQL, JQL
Tools/OS: Git, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, Ubuntu, Linux, Blender 3D Modeling, ROS2, Unity, Carla, Unreal Engine 4, REST APIs, Flask, JUnit, JIRA, Tableau, Agile, Word/Excel
Libraries: Pandas, NumPy, Matplotlib, OpenCV

Experience

Data Engineering Intern May 2024 - August 2024

Workday *Atlanta, GA*

- Systematically gathered and synthesized data, analytics, and metrics from over 200 programs, delivering profound analytical insights to top leadership and enhancing decision-making processes for cross-functional initiatives.
- Engineered the automation of the intake form to database pipeline through advanced Python scripting and API integration, developing 3 new automations to streamline data intake and processing, optimizing operational efficiency.
- Constructed and implemented executive dashboards via Tableau, reconstructed the Tableau data source architecture for improved long-term organization and precision, providing key stakeholders with essential insights on portfolio performances.

AR/VR Research Intern May 2023 - October 2023

UC Berkeley, FHL Vive Center for Enhanced Reality *Berkeley, CA*

- Developed 4 automated scenarios, enabling autonomous vehicle navigation through intersections, parking, and traffic signals. in Carla's Scenario Runner, used by internationally competing AI Racing Tech team
- Created and seamlessly integrated a 3D model of the official go-kart in use, into Carla Source Build, enhancing testing precision and measurement accuracy for the team's initiatives.
- Optimized Robot Open Autonomous Racing simulation, achieving a notable 6-second reduction in lap time.
- Enhanced code efficiency in Unity, facilitating the transition of the stack to Carla and Unreal Engine 4 utilizing ROS2.

Researcher at Summer Research Academy June 2021 - July 2021

UC Santa Barbara *Santa Barbara, CA*

- Researched the effect of Virtual Reality on human memory as part of the Human-Computer Interaction track, through the guidance of a Ph.D. professor and conducting official experimentation trials reflected in a Capstone paper.
- Learned how to design and develop in Unity and wrote scripts in C# in order to create a fully functioning game that tested users' memory in up to 9 different Virtual Environments.

Projects

E-Commerce Marketplace | *Java, Git, JUnit, IntelliJ* November 2022 – December 2022

- Developed the backend and frontend of a fully functioning multi-threaded online store with a seller side and a buyer side where the users can create accounts and use the respective features (buy product vs create product, etc.)
- Enhanced using filter by description, date, price, etc. options. Includes an easy-to-use GUI and test cases for each function written in JUnit.

Face Recognition App | *Python,Flask, Rest APIs, OpenCV, HTML, Heroku, Git* June 2023 – July 2023

- Built Machine Learning model for classification to automatically detect faces from images and videos
- Integrated the model in a Flask App with an HTML front end to display results, and deployed onto Heroku Cloud
- Learned how to work with APIs, practiced cleaning and organizing data for creating and training ML models.

Simple C Compiler | *Assembly x86-64, C* November 2023 – January 2023

- Used knowlegde of computer architecture to create a compiler that could parse Simple C code using Lex and Yacc, to generarte the Assembly x86-64 code.