

AMAN BHARDWAJ

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EDUCATION

Graphic Era Hill University

B.Tech Computer Science

And Engineering

- **Concentrations:** Intelligence and modelling/simulations
- GPA: 7/10
- **Related Coursework:** Data Structures & Algorithms, Objects & Design, Computer Organization & Programming, Combinatorics, Machine Learning, Artificial Intelligence, Object-Oriented Programming, Web Development.

RELEVANT EXPERIENCE AND PROJECTS

As a recent graduate, I have gained hands-on experience by working on several projects that allowed me to apply my theoretical knowledge in real-world scenarios. few projects I've worked on:

Game Development Projects

Project E4K

- Designed and coded browser-based game using JavaScript and Phaser.js , featuring storage and retrieval of data using supabase as database and in-game purchase payment gateway.
- Implemented Responsive CSS ensuring compatibility across all devices.
- Optimized game performance, reducing game lag's by 25% through efficient Sprite management.

Software Development Projects:

Project Tweak

- Inspired by Apple specific Procreate Dream's created an Web App called Tweak.
- Allows users to create highly realistic Animations and drawing including various brushstrokes and styles, custom tool creation , Flipbook to create Animations, Character Rigging , Layer based Canva Management system, Masking , Shedding, Rendering and many more powerful tools.
- Dynamic And Responsive stylus Support included for user's hand movement based motion capture feasibility using Ai.
- Responsive UI/UX for simplicity and User friendly experience.

Project Cast

- Project is to solve the issue of user's/Developer's who have only 1 device and can't afford for expensive Gadgets can now install CAST a Web-App That allows user to run Any Operating System i.e. MacOS,Windows,Linux,Android etc. just like an Emulator/simulator.
- Project is Purely hardware based Para-virtualization concept.
- Additionally for better user optimization cloud based integration is added for more soothing and streamless utilization.
- App is cross-platform origin so it doesn't depend what kind of initial device user have.

Project Nirvana

- Inspired by the Indian Knowledge System (IKS) from NEP 2020
- Project "Nirvana" is made with an effort to make its user especially focused on youth's to become smarter and more adaptable to the real-world situations.
- It Contains a collection of resource materials to teach user's about research and Development, Current Affairs, Philosophy, History, 64 Forms of Art and etc.
- "Nirvana" aims to Provide any newcomer an ed-tech platform to teach and solve problem's working for ₹ 25 /hr. While it varies for Researchers between ₹25 to ₹40/hr , depending on the Research Quality List as per ABDC.
- Includes a secure social media web-app that intends to make every user's post can trend, regardless of likes or reach thereby Promoting equal visibility from villages to metro cities.

Machine Learning and Ai Projects:

Project WorldO

- Developed a Machine Learning based Simulation Using python and TensorFlow to model Universe and simulating the big bang theory and making certain intelligent Ai based character's that thinks themselves as human's and work similarly provided they are allocated the background to learn to stimulate anything with the potential limit's that humans have.
- This project is based on Research and Analysis of theory of evolution and the potential growth of human mindset. While also believing that this might help us to collect data that might represent machines to have humanistic characters and traits.
- Model is based on Reinforcement learning and Algorithm's like N-body simulation, GANs, Genetic Algorithm, DEAP library , NEAT , ABM , MCTs , PSO were used with a manual brain logic based to stimulate actions by the agentic Ai human's.

Project CRoG

- CRoG is An AI based web Application using Python and Flask to automate Accounting tasks, including Ledger Management, Tax Calculation and Financial Forecasting.
- It is a One-click ITR Filing and provides you the minimalist amount of tax to be paid while following the latest policies and norms by the Gov of India. With an accuracy of 95% in predicting Tax Liabilities
- Model is based on Random-forest with scikit-learn to analyze user-provided inputs like Income,Expense, Investment's ,Savings etc..
- Dataset is based on 2024 Government policies and norms.

ACTIVITIES AND LEADERSHIP

- Wrote Book on "Charvaka Philosophy",.
- Lead Web-toon Editorial team (2019-2021).
- Published Review Paper on "Neutrinos" in IEEE 2023 Global Summit Conference.
- Initiated Crowd-funding for "Human Welfare cause" Since 2019.
- Sold Project "CRoG" to "Zerodha".

SKILLS

Programming: JavaScript , React.js, Node.js, Express.js, Supabase, NoSQL, SQL, MATLAB, Ruby, Swift, Html & CSS, C,Flask, Django.

Tools: Android Studio, IntelliJ, AWS , Jupiter Notebook, Git.

Certificate:

- AWS developer from Amazon.
- *Tier: Intermediate* Data Analyst from *University of Toronto*.

Soft Skills:

- Teamwork:
Collaborative group projects in the Final And Second Last Year of Graduation.
- Communication:
Proficient in speaking English, Hindi and Marathi.
- Time Management:
Meeting deadlines for Assignments and Quickly performing tasks given.
- Adaptability:
Learning New Technologies Everyday.
- Critical Thinking:
Debugging code and finding the optimized Solutions.
Always looking for Real-world Problems.