Rishikesh Yadav

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EDUCATION

Caldwell University: BS in Computer Science - Spring 2026 | **GPA:** 3.93/4.00

Courseworks: Data Structures & Algorithms, Database Management System, Operating Systems, Full Stack Web Dev, Artificial Intelligence, Linear Algebra, Probability & Statistics I & II, Programming Languages

SKILLS

Programming Languages : Go, Rust, OCaml, TypeScript, Solidity, Python, JavaScript, C#
Tools : ReactJS, Node, NextJS, Tensorflow, Keras, Kafka, Langchain, Flask, .NET Core, REST APIs, Websockets
Database/Devops: Firebase, AWS S3, DynamoDB, Postgresql, Redis, Git, Docker, Kubernetes, AWS EC2, Amplify

EXPERIENCE

NexBrick | *CEO (Acquired)* ***New York, NY* | May 2024 – May 2025**

- Built AI-powered real estate platform delivering 95% faster, patented home inspections.
- Secured $125K funding (7% equity) through Jason Calacanis' Launch Accelerator.
- Achieved six-figure acquisition in under 12 months from launch.

TapDrop Inc | *Senior AI Engineer* ***Dublin, TX* | May 2023 – May 2024**

- Created adaptive NPCs and real-time difficulty scaling using reinforcement learning and neural networks, enhancing player immersion through AI-driven responses.
- Implemented deep learning models for procedural content generation, enabling dynamic environments and unpredictable challenges.
- Optimized game engine performance with GPU-accelerated neural networks for real-time AI processing, delivering smooth and responsive AI interactions.
- Collaborated on AI-based predictive player modeling to refine game balancing, tailoring experiences based on player behavior and preferences.

STEM Advance Summer Research Program | *AI/ML Research Intern* ***Caldwell, NJ* | May 2023 – Aug 2023**

- Initialized and constructed 32 of 3x3 filter matrices for each Conv2D layers, generated the updated filter matrices for each Conv2D layer after each training
- Consistently removed filters with least activations and kept maximum of 32 filters with most activations maintaining strict uniformity in the shapes of training data and labels
- Crafted a highly efficient CNN model with a 5.67% boost in accuracy and reduction in the training time by 30.5 seconds.

Caldwell University | *Software Engineering Intern* ***Caldwell, NJ* | Jan 2023 – May 2023**

- Devised backend solutions and software components, enforced the detailed documentation, and contributed to the development of legacy applications in C# and .NET Core
- Incorporated 20+ complex test cases, performed unit tests, integration tests, and end-to-end tests to evaluate the solution efficiency.
- Designed and customized responsive web based database management system software to help 8k+ university users manage personal and public data and process using Firebase and REST APIs

PROJECTS

Scail (Typescript, ReactJS, NextJS, Firebase, AWS Amplify, Rust, Tensorflow, Keras) - Engineered a highly secure, interactive, and modern real estate application with real-time communication using websockets and webRTCs, enabling seamless interaction between clients and brokers. I spearheaded the development of an AI-powered analytics subdomain leveraging Deep Learning Neural Networks. This subdomain empowered users to make faster and more informed investment choices. I prioritized security by minifying frontend code, blocking third-party cookies, and implementing a website firewall

tap2crypto (Golang,Python,Natural Language Processing, ViteJS,AWS ECR, AWS ECS) - Developed a secure and user-friendly crypto wallet for scan-to-pay and tap-to-pay functionality. Leveraging Natural Language Processing and Deep Learning, I implemented a model that analyzes stock market sentiment from Twitter and Yahoo News. This model identifies highly volatile stocks and their associated call/put options ratio, providing valuable insights for informed investment decisions. I integrated a smart contract to seamlessly convert Ethereum to USD and execute call/put purchases based on the model's recommendations.

dbquery.ai (Golang,Typescript, Langchain, Turborepo, Vercel, AWS EC2) - Pioneered a high-performance, persistent, and versatile AI-powered database query generator. It leverages Llama, an open-source Large Language Model, to generate queries for Firebase, MongoDB, and PostgreSQL. By fine-tuning the model with over 10,000 queries across these databases, I achieved a significant reduction in training loss to 0.02%. This optimization ensures dbquery.ai generates accurate and efficient queries, streamlining data retrieval processes.

FoodieTransfer (Python, Tensorflow) - Developed an advanced food recipe recommender using cross-domain transfer learning and a graph-based Laplacian matrix framework. It employs functional models for domain adaptation, surpassing interconnected models. Soon, it will dynamically expand its keyword space through real-time streaming, highlighting my dedication to innovative recommendation systems.