# GITHUB DEMOCRATIZES AI WITH NEW PLATFORM

# C2-DATA QUEST

# DEPARTMENT OF BTECH COMPUTER TECHNOLOGY

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- GitHub Models brings AI to every developer. Experiment with top AI models, build AI applications, and deploy to production, all on GitHub. Empowering innovation and accelerating AI development .GitHub on 02Aug 2024 unveiled GitHub Models, a platform designed to empower its 100 million+ developers to harness the power of AI. By providing access to toptier AI models like Llama 3.1, GPT-4o, and Phi 3, GitHub aims to transform every developer into an AI engineer. This one-stop shop features models from industry leaders like Meta, Mistral, OpenAI, Cohere, AI21 Labs, and Microsoft.

## DEMOCRATIZING AI FOR DEVELOPERS EVERYWHERE

- GitHub CEO, Thomas Dohmke, envisions GitHub Models as a game-changer, democratizing AI for the masses. He emphasizes the impact this will have on India, with its rapidly growing developer community (currently 15.4 million) projected to be the largest on GitHub by 2027. "Every developer in India on GitHub can become an AI engineer," says Dohmke, "fueling a wave of AI applications and propelling India's competitive edge in the AI era."

- A built-in playground allows users to experiment with different models and prompts, fostering innovation and learning. GitHub emphasizes its commitment to privacy and security, assuring users that no data is shared with model providers.

- As part of its vision for a world where one billion people can code, GitHub is positioning itself as the central hub for AI development and collaboration. With GitHub Models, the company

takes another step towards this goal, aiming to foster a community of AI engineers and drive advancements in artificial intelligence.

- Every project demands unique AI capabilities, and GitHub Models offers a diverse range of options. From the low-latency Mistral to the multimodal GPT-4o, developers can select the ideal model for their needs. Advanced use cases, like Retrieval Augmented Generation (RAG), can be achieved by combining multiple models.

- GitHub's Code spaces provides a streamlined environment for experimenting with model inference code. Pre-built code samples for various languages and frameworks accelerate development and eliminate common setup challenges.

**KEY FEATURES OF GITHUB MODELS**

- User-friendly playground for experimentation
- Integration with Codespaces for development
- Deployment options on Azure
- Commitment to privacy and security
- Model Exploration and Experimentation

**FROM EXPERIMENT TO PRODUCTION**

- Once developers have refined their models, they can effortlessly integrate them into their projects. GitHub Actions facilitates prompt evaluation, while the GitHub Copilot Extension extends AI capabilities across the development lifecycle.

- For production deployment, Azure AI offers robust support with features like responsible AI, enterprise-grade security, and global availability. This seamless transition from development to production ensures scalability and reliability.

**A DEVELOPER-CENTRIC AI ECOSYSTEM**

- GitHub's vision is to create a comprehensive platform for AI development and collaboration. By providing easy access to models, tools, and community resources, GitHub empowers developers to build innovative AI applications.

- As the AI landscape evolves, GitHub will continuously expand its model offerings to meet the growing demands of developers. The company is committed to fostering a thriving AI community and accelerating the development of cutting-edge software.

- GitHub Models is currently in limited public beta.

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# IMPACT OF VR IN HEALTHCARE AND TRAINING

# C3-PC QUEST

## DEPARTMENT OF BTECH COMPUTER TECHNOLOGY

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- MediSim VR, a leading healthcare simulation company that offers patent technology designed to meet the unique needs of healthcare training worldwide.

- MediSim VR is a leading healthcare simulation company that offers patent technology designed to meet the unique needs of healthcare training worldwide. Medisim VR's AI-powered competency assessment tools and immersive virtual training environments elevate the performance of medical students, nursing students, doctors, and healthcare professionals by offering unparalleled immersive experiences that redefine medical education

- Jeno Manickam Durairaj is co-founder/CTO of Medisim VR and a highly skilled software engineer with a wealth of experience in game development and virtual reality technologies. He has over 10 years of experience working with the Unity 3D Engine and has produced games with over 10 million downloads on the Play Store and App Store. In addition to his software development skills, Jeno has experience working with hardware and sensors for VR simulations.

## PCQ: HOW DO YOU OPERATE THE SIMULATION PROCESS IN VR IN HEALTHCARE?

- Jeno Manickam Durairaj: Simulation, at its core, involves crafting scenarios that mirror reality as closely as possible. This entails a deep understanding of fluid dynamics, along

with integrating various layers and supporting elements such as audio, visual, and the tactile 'touch and feel' layer. VR/AR/MR serve as the medium for these simulations, offering a unique blend of immersion and interactivity.

- Virtual reality, in particular, excels in three key areas: revisiting historical moments, teleporting users to any location instantly, and, most importantly, training professionals by equipping them with necessary skills in a completely immersive environment. While I may hold a slight bias, I firmly believe that training is where VR truly shines. The depth of learning and retention of information achieved when one is fully immersed in a simulated environment is unparalleled.

- With over a decade of expertise in simulation across various fields—from transportation (including buses, trains, and tractors) to welding—our team at MediSim VR has honed its skills in creating immersive, realistic training modules. Our background in game development plays a crucial role in this. Game developers, in our experience, have an edge over traditional software developers because of their adeptness at crafting engaging, interactive experiences—a skill essential for effective simulation.

- Utilizing game development engines, we've been able to push the boundaries of what's possible in VR simulations. The intersection of AI and simulation is another area where we excel. AI has been a component of game development since the days of Pac-Man, and our early adoption of AI for creating responsive, adaptive simulation environments has kept us at the forefront of VR innovation.

## PCQ: HOW IS THE TRAINING PROCESS CARRIED OUT THROUGH VR IN MEDICAL HEALTHCARE?

- Jeno Manickam Durairaj: Training using VR combines visual, auditory, and kinaesthetic ways of learning. In VR, you learn by doing what you would in real life, in a safe and immersive environment. In VR training, interactivity isn't just a feature—it's the cornerstone of transformative experiences

- The efficacy of VR training is evidenced by its remarkable outcomes across various industries, with Boeing Simulation Training as a prime example. Here, VR's interactive capabilities led to a 75% decrease in training time and a 33% increase in accuracy, underscoring the technology's potential to enhance learning outcomes significantly. A recent PWC report, states that VR learners are 4x faster to train than in the classroom setup. They are 27% more confident in applying the skills they learned and have a higher level of concentration and emotional connection than classroom learners.

- When we narrow our focus to the medical healthcare sector, the stakes are inherently higher. Simulating healthcare situations presents a unique set of challenges due to the complexity and high stakes of medical procedures. However, the rewards are equally significant, if not more so.

- By integrating VR into medical training, we aim to reduce medical errors—a leading cause of concern in healthcare—thereby indirectly saving lives. Creating learning modules where physics and fidelity to real-life situations are perfected is important to succeed in healthcare training. I believe that if we can successfully simulate healthcare scenarios with all their intricacies, we can potentially simulate any situation.

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