# Hrishabh Ayush

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#### **EDUCATION**

#### Cornell University

Ithaca, NY

B.A. in Computer Science & Mathematics, TATA Scholar

Expected - Dec 2026

#### EXPERIENCE

### Software & Smart Contract Engineer at Aladdin AI

Apr 2025 – Present

Machine Learning Intern

Manhattan, NY

- Deployed and customized over 10 open-source AI agents using dockerization with benchmarking categories
- Developed a scalable CI/CD pipeline using GitHub Actions and AWS (EC2, S3), Render, CloudFlare, and Railway to automate testing, Docker container deployment and infrastructure update for agent workflows

#### Software Engineer at Seismic Systems

Jan 2025 – Apr 2025

 $Smart\ Contract\ and\ FullStack\ Development\ Intern$ 

Manhattan, NY

- Developed an Automated Market Maker in Solidity that transforms each swap into an AI generated violin track
- $\bullet$  Created a React Native mobile app for real-time market-driven audio feedback, enhancing user engagement and reducing playback latency by 30% for seamless trading interactions

## Head of Engineering at Cornell Blockchain Club

Jan 2024 – Present

Cornell University

Ithaca, NY

- Designed a secure, decentralized verification layer model using blockchain technology to facilitate bespoke verification for gig-based tasks, improving transparency and trust in video collaboration processes
- Developed an AI-powered matching system using large language models (LLMs) to compare video image renders with transcribed text, ensuring content accuracy of upto 90% and enhancing video editing workflows
- Mentored 5 groups of 3-4 students with technical insights, demo strategy, and problem-solving code and concepts

### **PROJECTS**

Context aware screen overlay agent using RL | Typescript, Activity Watch, Docker, Railway Feb 2024 - Present

- Created a real-time, modular voice agent integrated into a screen overlay, capable of analyzing and responding to user activity through reinforcement learning models with 300 ms sub-latency
- Engineered adaptive behavior in the agent using feedback loops based on user interactions and the Doodles API, increasing task relevance and character engagement by over 60% during an average session
- Awarded \$20,000 for delivering the Best Immersive Experience at Dreamnet Character agent hackathon

Event Driven Insurance Prediction Markets | Typescript, Solidity, Python, Node.js

Feb 2024 - Present

- Awarded \$5000 for building the Best Product in Encrypted DeFi at Penn Blockchain Hackathon.
- $\bullet$  Built a parametric-insurance marketplace across verticals that auto-pays claims, shrinking settlement time by 95%.
- Engineering an uncorrelated yield stream for hedge funds via a pooled-underwriting vault and stochastic modeling to generate 5% APY returns on each predictions.

- Developed ClaimAssist, trained on 5000 synthetic data, predicted claim adjudication from physician's note & EHR
- Created dynamic-weight learner algorithm with Random Forest, ClinicalBERT, and OpenAI, adopting a fallback mechanism that achieves 90% prediction accuracy on synthetic and real dataset.
- Won the First Prize with the best solution in legacy healthcare among 50+ people.

Web3 SaaS for Social Media Optimization | TypeScript, Web3.js, Solana, AWS, Git May 2024 - Feb 2025

- Implemented frontend components with REST APIs and developed payment processing using Solana, potentially reducing transaction processing time by 5 seconds and enhancing platform responsiveness for user interactions
- Integrated a secure file upload system using AWS S3 presigned URLs and CloudFront, which improved content delivery speed by 40% and reduced backend infrastructure exposure, ensuring data security and optimizing UX

## TECHNICAL SKILLS AND AWARDS

Languages: Python, Java, Solidity, C/C++, OCaml, Rust

Libraries: Numpy, Matplotlib, Pandas, Git, TensorFlow, PyTorch, Scikit-Learn

Fullstack: Next.js, Tailwind, JavaScript, TypeScript, Node.js, React.js, AWS, Prisma, Express.js, Docker, PostgreSQL Awards: USAMO Qualification, AMC 12 Distinguished Honor Roll – Top 1% in the world, 2 times AIME Qualified, NTSE Scholar, KVPY Fellowship, Online Physics Olympiad High Honors, National Math Olympiad