

# Hrishabh Ayush

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## EDUCATION

### Cornell University

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

Ithaca, NY

*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
- 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, ActivityWatch, 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 \$20k 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.
- 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.

### Insurance claims denial predictor for healthcare providers | *Python, ClinicalBERT, OpenAI*

June 2025

- 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