

HRISHABH AYUSH

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Education

Cornell University, Ithaca, NY

Expected May 2026

B.A. in Computer Science and Mathematics, TATA Scholar in the College of Arts and Sciences

Relevant Coursework: Data Structures, Discrete Structures & Analysis of Algorithms, Linear Algebra, Probability & Statistics, Functional Programming, Real Analysis, Machine Learning, Networks

Relevant Experience

YouTube Middleware Project

Aug 2024 - Present

Engineering Lead, Cornell Blockchain Club

Ithaca, NY

- Selected to pitch the project at CUBE Summit, NYC among top 10 US schools in the AI and crypto innovation track.
- 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.
- Developing 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.

Excelerate Data Visualization Internship

Jun 2023 – Jul 2023

Project Lead, Illinois Institute of Technology, Globalshala

Remote

- Analyzed data of 12 Facebook campaigns using Excel and PowerBI with metrics like reach, unique link clicks, etc., and reported to Project Head twice a week with 8 – 12 page report emphasizing data-driven plans for future campaigns.
- Outlined plans to improve return on investment (ROI) by 5% for Globalshala's campaign by recommending discontinuation of two underperforming campaigns.

Research in Astrophysics at Summer Science Program

Jun 2022 – Jul 2022

Astrophysics Researcher at the University of Colorado Boulder

Boulder, CO

- Completed 400 hours of work in numerical analysis and simulation in Python and image processing with AstroImageJ.
- Computed the orbit of near-Earth asteroid using Celestial Mechanics and published astrometry-photometry data along with Monte Carlo simulation in Harvard Minor Planet Center.

Projects

AI Powered Interview Analysis Platform | *Next.js, AWS, Prisma, OpenAI* [GitHub](#)

Nov 2024

- Won Best Interactive Product Award at the NYC Talent 2.0 Hackathon, standing out among 150+ participants.
- Developed a Generative-AI interview feedback system providing real-time insights to candidates, including sentiment analysis and constructive feedback, reducing post-interview anxiety and boosting candidate satisfaction by 25%.
- Engineered a scalable AWS platform with OpenAI integration to analyze videos faster, handling up to 200 candidate assessments per hour, improving recruiter efficiency by 40% through automated insights and data-driven hiring metrics.

Web3 SaaS for Social Media Optimization | *TypeScript, Web3.js, Solana, AWS* [GitHub](#)

May 2024 – Present

- 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 user experience.

Mean Reversion Trading Strategy for Yahoo Stocks | *Pandas, Numpy, Scikit, Matplotlib*

Sep 2023 – Oct 2023

- Implemented a comprehensive Reversion trading algorithm on Yahoo Finance, resulting in the tactical execution of over 100 trades monthly, ultimately increasing overall trading strategy effectiveness and reliability in volatile markets.
- Computed and analyzed performance metrics, generated visualization charts on returns, drawdowns, and equity curves; refined actionable insights to optimize trading strategies, improving probability and risk-adjusted returns by 15%.

Technical Skills and Awards

Languages: Python, Java, C/C++, OCaml, Solidity, Rust, Latex, Scientific Computing

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

Fullstack: Next.js, Tailwind, JavaScript, TypeScript, Node.js, React.js, AWS, Prisma, Express, 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 Astronomy Olympiad, National Math Olympiad