Eric Hou

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"The best ideas come as jokes. Make your thinking as funny as possible." — David Ogilvy

Education

Los Gatos High School **2023 – present**
GPA: 4.0 UW/4.67 W

Laney College **2026 – present**
Concurrent enrollment (Discrete Mathematics)

Research and Publications

- On the first occurrence of an integer as a prefix sum of divisors. *2026*
  H. Chae, J. Fraiture, E. Hou, V. Kovač, C. Kudeba, A. Shakov, D. Vidal. Seven-author manuscript addressing Erdős Problem #1054; collaborative research with Terence Tao.
- Scaling Test-Time Compute of Diffusion-Based Posterior Samplers for Physical Inverse Problems. *2026*
  Eric Hou and Haoxuan Chen. Stanford University research; accepted to the NeurIPS 2026 AI4Science Workshop.
- Cofinite Zeros of High Derivatives. *2026*
  Eric Hou. Disproved the Boas–Reddy theorem and solved Erdős Problem #906; under review at *Annales Fennici Mathematici*. arXiv:2607.20816.
- Local Regularization Does Not Characterize Multiclass PAC Learnability. *2026*
  Eric Hou. arXiv:2607.23449.

Selected fellowships and awards

United States Physics Team Member / USAPhO Gold
Team Canada, International Olympiad on Astronomy and Astrophysics
USNCO High Honors
3x USA(J)MO Qualifier

Experience

Researcher: Principia Math *2026 – present*
Built a platform to digest AI-generated proofs into rigorous, human-readable mathematical arguments; researched HRT and Zauner with Prof. Kasso Okoudjou. Partnered with Professor Stephen Wolfram, MathDB, and the ARC Prize Foundation.

Researcher: Stanford University *2026 – present*
Researched diffusion posterior samplers for inverse problems under Prof. Lexing Ying and PhD candidate Haoxuan Chen; evaluated inverse scattering, Navier–Stokes, and full-waveform inversion. NeurIPS 2026 AI4Science Workshop.

Director & Lead Organizer: Los Gatos Hacks *2023 – present*
Led four hackathons; the 2026 event drew 100+ participants from 15+ schools. Secured over $10,000 in sponsorships and organized speakers, workshops, and operations.

Co-Founder: Rooxts *2025 – 2026*
Co-founded VC-backed social app; developed the platform and raised $10,000 at a $100,000 valuation.

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