

Shikhar Shiromani

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EXPERIENCE

Apple

Senior ML Engineer

June 2026 - Present

- Developing intelligent systems that optimize power and performance across Apple's operating systems

NVIDIA

Senior Software Engineer - Tech Lead

Feb 2025 - June 2026

- Built the first server lifecycle management system at NVIDIA that streamlines resource requests, allocations, and deployment tracking for faster data center rack bring-up
- Explored ML techniques to enhance node uptime by predicting failures and optimizing system reliability

NVIDIA

Machine Learning Research Intern

May 2024 - Aug 2024

- Architected an ML-driven predictive maintenance system for over 1000 Blackwell/Hopper nodes, reducing downtime and delivering over **\$100k/year** in operational savings
- Implemented the model for multidimensional multimodal anomaly detection with negative-sampling and integrated gradients for variable attribution during model interpretation.
- Developed microservices for telemetry collection (6200+ metrics in 2 mins), dashboarding (Grafana) and failure prediction
- Deployed an MLOps pipeline using Airflow and implemented a FastAPI based REST service, handling over 10,000 inferences/day
- Presented a poster at NTech Conference 2024; first author on the patent [US 2026/0267765 A1](#)

AI Institute for Advances in Optimization (AI4OPT)

Graduate Research Assistant (Georgia Tech), advised by Prof. [Pascal Van Hentenryck](#)

Aug 2023 - Dec 2024

- Founding backend engineer responsible for developing a highly available backend system for an [on-demand multi-modal transportation solution](#), focusing on large-scale ride-sharing. Available on [iOS](#) and [Android](#).
- Successfully piloted in Savannah, GA over 15 months to schedule more than 100 rides daily
- The project was awarded one of the [SMART 20 Awards](#) 2025

NVIDIA

Software Engineer II

Jul 2019 - Jul 2023

- Architected and wrote a scalable self-serve CI/CD platform, cutting engineering workload turnaround time by 93%
- Presented a paper at NTech India Conference, discussing several benefits of the system
- Delivered the [NvCCP \(NVIDIA's Camera Control Protocol\)](#) module for successful automotive safety assessments by driving the software architecture, features and functional verification of the module

RESEARCH FELLOWSHIPS

◦ Pivotal Research Fellow

Feb 2026 - Present

- Selected as a Research Fellow from 2,500+ applicants; working with Noah Y. Siegel (Google DeepMind, UK)

◦ MARS V Research Fellow

Jul 2026 - Present

- Working with Julian Schulz on steganographic reasoning in LLMs

PUBLICATIONS

◦ [Necessary but Not Sufficient: Auditing Same-Answer Counterfactuals for Chain-of-Thought Faithfulness](#)

Shikhar Shiromani, Leo Richter

AIWILD, IAB, AI4GOOD @ NeurIPS 2026

◦ [A False Average: Pooled CoT-Monitor Accuracy Conceals a Reasoning-Dependent Fragility](#)

Shikhar Shiromani, Leo Richter

AIWILD @ NeurIPS 2026

◦ [SAGE: Agentic Framework for Interpretable and Clinically Translatable Computational Pathology Biomarker Discovery](#)

Sahar Almahfouz Nasser, Juan Francisco Pesantez Borja, Jincheng Liu, Sandeep Manandhar, **Shikhar Shiromani**, et al.

NeurIPS 2026

◦ [ProMoral-Bench: Evaluating Prompting Strategies for Moral Reasoning and Safety in LLMs](#)

Rohan Subramanian Thomas, **Shikhar Shiromani**, Abdullah Chaudhry, Ruizhe Li, Vasu Sharma, Kevin Zhu, Sunishchal Dev

AAACL-IJCNLP 2026; PersonaNLP @ NeurIPS 2025

- **Where Reliability Lives in Vision-Language Models: A Mechanistic Study of Attention, Hidden States, and Causal Circuits**
Logan Mann, Ajit Saravanan, Ishan Dave, **Shikhar Shiromani**, Saadullah Ismail, Yi Xia, Emily Huang
Mechanistic Interpretability Workshop @ ICML 2026
- **Visuals Lie, Consistency Speaks: Disentangling Spatial Attention from Reliability in Vision-Language Models**
Logan Mann, Yi Xia, Ajit Saravanan, Ishan Dave, Saadullah Ismail, **Shikhar Shiromani**, Emily Huang, Ruizhe Li, Kevin Zhu
Multimodal Intelligence Workshop @ ICLR 2026
- **Benchmarking Pluralistic Alignment Through Persona-Conditioned Behavioral Evaluation**
Archie Chaudhury, **Shikhar Shiromani**, Ayushi Mehta
Pluralistic Alignment Workshop @ ICML 2026
- **Linear Predictability of Attention Heads in Large Language Models**
Khalid Shaikh, Asmit Kumar Singh, Rebecca Dsouza, **Shikhar Shiromani**
SELVA @ ACL 2026 (Oral)
- **The Hypocrisy Gap: Quantifying Divergence Between Internal Belief and Chain-of-Thought Explanation via Sparse Autoencoders**
Shikhar Shiromani, Archie Chaudhury, Sri Pranav Kunda
Preprint
- **COMPASS: Context-Modulated PID Attention Steering System for Hallucination Mitigation**
Snigdha Pandya, Rohan Nagale, Kenji Sahay, Anna Lin, **Shikhar Shiromani**, Kevin Zhu, Sunishchal Dev
LaMAS @ AAI 2026 (Oral)
- **ChameleonBench: Quantifying Alignment Faking in Large Language Models**
Archie Chaudhury, **Shikhar Shiromani**
ACML 2025 (Oral)

EDUCATION

Georgia Institute of Technology, Atlanta, USA <i>Master of Science in Computational Science and Engineering, GPA: 4.0/4.0</i>	<i>Aug 2023 - Dec 2024</i>
Birla Institute of Technology and Science, Pilani, India <i>Bachelor of Engineering in Electrical and Electronics Engineering, GPA: 8.20/10.0</i>	<i>Aug 2015 - Jun 2019</i>

SKILLS

Languages: Python, C/C++, TypeScript, JavaScript, SQL
Tools/Frameworks: PyTorch, Django/Flask, NodeJS, MySQL, InfluxDB, K8s, Docker, ReactJS, Jenkins
Coursework: Systems for ML, Deep RL, High Performance Computing, Database Systems Implementation, Algorithms