Laasya M. Koduru

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Education

University of California, Santa Barbara — Santa Barbara, California
Doctor of Philosophy (Ph.D.), Computer Science — Sept 2024–Present
Advisors: Professors Arpit Gupta and Elizabeth Belding

University of California, Santa Barbara — Santa Barbara, California
Master of Science (M.S.), Computer Science — Sept 2023–Present

University of California, Santa Cruz — Santa Cruz, California
Bachelor of Science (B.S.), Applied Mathematics — Sept 2020–June 2023

Research Interests

My research centers on building systems that enable data-driven policymaking and support universal access to high-quality, affordable broadband networks.

Honors

- The National GEM Consortium Ph.D. Science and Engineering Fellowship — April 2025 - Present
- IETF/IRTF Applied Networking Research Prize — April 2025
- UC Santa Barbara Computer Science Summer Fellowship — June 2024

Publications & Articles

1. Jaber Daneshamooz, Eugene Vuong, **Laasya Koduru**, Sanjay Chandrasekaran, Arpit Gupta, "NetGent: Agent-Based Automation of Network Application Workflows", Workshop on Machine Learning for Systems at NeurIPS, Dec 2025.

2. **Laasya Koduru**, Arpit Gupta, Elizabeth Belding, Tejas N. Narechania, "Evaluating the Effects of and Interdependencies among Federal Broadband Funding Programs", The Research Conference on Communications, Information and Internet Policy (TPRC), Aug 2025.

3. **Laasya Koduru**, Alejandro Rojas, Angel Penate, Siyi Zhou, Francois Bar, Elizabeth Belding, Hernan Galperin, Arpit Gupta, "Assessing the Broadband Service Gaps and Affordability Barriers in Bead-Eligible Areas", The Research Conference on Communications, Information and Internet Policy (TPRC), Aug 2025.

4. Zhuowei Wen, Jocelyn Bliton, **Laasya Koduru**, Arpit Gupta, Shaddi Hasan, "Strategic Misreporting in the National Broadband Map", The Research Conference on Communications, Information and Internet Policy (TPRC), Aug 2025.

5. Haarika Manda, Varshika Srinivasavaradhan, **Laasya Koduru**, Kevin Zhang, Xuanhe Zhou, Udit Paul, Elizabeth Belding, Arpit Gupta, Tejas Narechania,"Measuring Broadband Policy Success", Harvard Law Review.

6. Haarika Manda, Varshika Srinivasavaradhan, **Laasya Koduru**, Kevin Zhang, Xuanhe Zhou, Udit Paul, Elizabeth Belding, Arpit Gupta, Tejas Narechania,"Assessing the Efficacy of the Connect America Fund in Addressing Internet Access Inequities in the US", Proceedings of the ACM SIGCOMM 2024 Conference.

Work Experience

University of California, Santa Barbara

Graduate Student Researcher, Systems and Networking Lab (SNL), MOMENT Lab — Sept 2023-Present

- Used Python to automate user interactions of websites, by parsing HTML to gather public data. Adapted tool for web-scraping publicly available data using a scalable docker system with Selenium to include coverage for different internet service providers. Languages used: Python.
- Extracted/analyzed meaningful information about internet equity from different internet service providers.

Idaho National Laboratory

Cybersecurity Machine Learning Algorithms Intern — June 2025-September 2025

- Developed a Machine Learning algorithm to separate mixed Ethernet signals (96% accuracy) into original signals, resulting in new cybersecurity capabilities for securing control systems critical infrastructure. Languages used: Python.

University of California Santa Cruz, Baskin School of Engineering

Peer Advisor — June 2022-Sept 2023

- Answered 20+ phone calls from prospective parents/students, and in-person advising questions from 100+ students each week.
- Organized over 5000+ Engineering student records including major declarations/appeals, progress checks, and interdepartmental major changes.

University of California Santa Cruz, Academic Excellence Program (ACE)

Co-Leader/Peer Mentor — Sept 2022-June 2023

- Co-led 40 Calculus ACE Problem Solving sessions with Learning Skills Advisor, led collaboration activities with 30 undergraduate students on Calculus.
- Led 70 peer mentoring sessions with individual sessions of 5 students each, targeting focused review of Calculus content; increased student academic performance in Calculus courses by over 80%.

Technical Skills

- **Programming:** Python, C, C++, Java, R, Matlab
- **Machine Learning:** PyTorch, Keras, Tensorflow
- **Big Data:** SQL
- **Tools/Frameworks:** LATEX, Git, AWS

Teaching

- **Teaching Assistant for Introduction to Computer Communication Networks (Winter 2025)**
  Instructor: Professor Elizabeth Belding
- **Teaching Assistant for Machine Learning for Networking (Fall 2024)**
  Instructor: Professor Arpit Gupta