

Neelima Prasad

Ph.D. Student, University of Colorado Boulder

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Education

Sept. 2023 Present	University of Colorado, Boulder Ph.D., Computer Science, <i>Advisor: Dr. Danna Gurari</i>	Boulder, CO
Sept. 2023 May 2025	University of Colorado, Boulder M.S., Computer Science, <i>Advisor: Dr. Danna Gurari</i>	Boulder, CO
Sept. 2018 Dec 2021	University of California, San Diego B.S., Mathematics & Computer Science	San Diego, CA

Work Experience

Jan. 2026 Present	LightTable <i>AI Engineering & Research Intern</i> Building AI-powered workflows for an architecture and construction platform Evaluating LLM's abilities to analyze architectural drawings, specs and project documents Creating architecture datasets and fine-tuning RT-DETR models to improve models' accuracy Regularly use Modal, Supabase, Pydantic Logfire,	Denver, CO
Sept. 2023 Present	University of Colorado Boulder Image and Video Computing Group <i>Graduate Research Assistant</i> Developing computer vision systems that can segment/track objects and their constituent parts Research interests: <i>computer vision, NLP, dataset creation, deep learning</i>	Boulder, CO
Mar. 2022 Jul 2023	Naval Air Systems Command (NAVAIR) <i>Full Time Computer Scientist Secret Level Clearance Obtained</i> <u>Project War-Gaming</u> : Created many v. many scenarios using simulation software (C#). Implemented deep reinforcement learning techniques to solve these scenarios by determining the optimal path for a protected entity. Developed algorithms to run simulations simultaneously and generate plots to illustrate the algorithms' success. <u>Software Engineer for Simulation Developers</u> : Created a working database using SQL and SQLite to store radar and emitter parameters used for simulation development. Designed the user interface of the database using HTML, jQuery, and CSS <u>Tasking- Radar Engineer/Operator</u> : Operated and calibrated radar simulator systems used for electronic warfare countermeasure scoring	Point Mugu, CA
Jun. 2018 Dec. 2021	Los Alamos National Laboratory <i>Summer Research Intern Mentors: Dr. Nicole Lloyd-Ronning and Dr. Nathan Lemons</i> <u>Project - Cryptography</u> : Evaluated lattice-based post-quantum cryptography signature schemes Learned and use techniques from homomorphic computation to develop those schemes which extend quantum key distribution mechanisms to allow encryption, decryption, and signature verification on a global level <u>Project: Network Analysis</u> : Worked on the statistical, graph theoretic and algorithmic analysis of authentication events on large local area networks. Wrote algorithms that implemented various network and time series analysis metrics to analyze datasets. Explored new visualization approaches in understanding temporal network dynamics <u>Project: Astrophysics</u> : Analyzed Gamma-ray burst data from LIGO using MatLab. Co-authored an academic paper about speculating certain parameters from the data analyzed	Los Alamos, NM

Publications

Hierarchical Instance Tracking to Balance Privacy Preservation with Accessible Information

Neelima Prasad, Jarek Reynolds, Neel Karsanbhai, Tanusree Sharma, Lotus Zhang, Abigale Stangl, Yang Wang, Leah Findlater, and Danna Gurari. IEEE Winter Conference on Applications in Computer Vision (WACV), March 2026.

Constraints on Gamma-Ray Burst Inner Engines in a Blandford-Znajek Framework

Nicole M. Lloyd-Ronning, Chris Fryer, Jonah Miller, Neelima Prasad, Chris Torres, Phillip Martin
Oxford Academic, Feb 2019

Positions and Projects

Research Assistant for Image and Video Computing Lab, 2025

Teaching Assistant for Data Structures, Neural Networks and Deep Learning, 2023-2025

Department Graduate Committee Student Representative, 2025

Student Lead of AI by Hand Initiative, 2024

Awards

Conference Support and Publication Grant 2025

SMART Scholarship 2023

Awarded DoD SMART Scholarship for graduate studies in STEM

Incentive Award 2022

Division award for my work on my effort with the war-gaming at NAVAIR

Provost Honors – 5 quarters 2021

Awarded to students each quarter for an exemplary term GPA

Skills

Programming Languages

Python, C++, Java, C, C#, MATLAB, R, ARM Assembly, JavaScript, Swift, Julia

Programming Background

Frontend (*ReactJS, jQuery*)

Built and maintained a database (*SQL, SQLite, Supabase, PostgreSQL*)

AI Tools: (*Pytorch, TensorFlow, Hugging Face Transformers*)

Engineering: (*Modal, Pydantic Logfire, AWS, Docker, FastAPI, Django*)

Relevant Graduate Coursework

Computer Vision, Neuro-Symbolic Approaches to NLP, Linear programming, Machine Learning, Object Oriented Analysis and Design

Academic Service

Organizer

VizWiz Grand Challenge Workshop at CVPR (2025, 2026)