Nandita S. Naik

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LinkedIn

Education

2023–2024   **Master of Science**, *Computer Science*, Stanford, *GPA − 4.0*.
Specializing in AI/ML. Coursework in complexity theory, graphics, and spoken language processing.

2019–2023   **Bachelor of Science**, *Computer Science*, Stanford, *GPA − 3.97*.
Specialization in CS theory. Coursework in machine learning, NLP with deep learning, data structures and algorithms, computer architecture/hardware design, computer systems, continuous math for machine learning, reinforcement learning, graph theory, logic Programming, discrete math, and theoretical computer science.

Experience

2022–Present   **Research Intern**, Stanford NLP Group.
Research on augmenting Visual Question Answering (VQA) models with contextual information, with Prof. Chris Potts and Prof. Elisa Kreiss. One paper published in ICCV Closing the Loop Between Vision and Language Workshop, and one full-length paper under review.

Summer 2022   **Software Engineering Intern**, Microsoft Security Research.
Developed a pipeline using GPT4 for query autocompletion with Kusto Query Language (KQL).

June - August 2021   **Software Engineering Intern**, Amazon Web Services.
Developed a full-stack service on the Amazon Care team with Lambda, DynamoDB, and API Gateway.

2021–2022   **Research Intern**, Trippel Lab.
Electrical engineering and hardware research on memory consistency models. Developed a memory arbiter for RIDECORE in Verilog, and designed a way to check for illegal execution given a memory consistency model and litmus test.

June - August 2020   **Software Engineering Intern**, Community Response Works.
Built a chatbot for the Raheem website, created interactive data visualization dashboards with MapboxGL.

June - August 2017, 2018   **Research Intern**, Stanford Biology Lab.
Designed an object detection algorithm to localize cilia within microscopy images.

Awards

2023   CS 229 Best Project, selected from 300+ students

2023   Bocock-Guerard Fiction Prize, 2nd Place

2022	Stanford Levinthal Scholar
2019	Stanford CS + Social Good Fellowship
2016	USA Computing Olympiad, Gold Division
2016	Stanford she++ #include Fellow

Publications

2024	Nandita Shankar Naik, Christopher Potts, and Elisa Kreiss. CommVQA: Situating Visual Question Answering in Communicative Contexts. Under Review.
2023	Nandita Shankar Naik, Christopher Potts, and Elisa Kreiss. Context-VQA: Towards Context-Aware and Purposeful Visual Question Answering. Presented at ICCV Closing the Loop Between Vision and Language Workshop.
2022	Nandita Shankar Naik, Tiffany Naiman. You Know, I'll Be Free: Gnosticism, in David Bowie's Blackstar Album. Presented at International Association for the Study of Popular Music.

Projects

2023	MultiSat: Developed a model for embedding satellite images using multi-task learning. Awarded Best Project in CS 229, Andrew Ng's graduate-level ML class, out of 250+ people.
2023	Describing Charts and Graphs with Context: Developed models that generate automatic summaries for charts and graphs, incorporating contextual information.
2021	Reinforcement learning for Pacman: Applied Deep Q-learning and Deep Sarsa to solve Pacman for Reinforcement Learning class
2021	Single-cycle MIPS Processor: Programmed single-cycle MIPS processor in Verilog for digital systems architecture class. Implemented forwarding and stalling, several MIPS Assembly instructions, and load linked and store conditional.
2021	Verilog Hardware Accelerator: Implemented a custom hardware accelerator for Sobel image filter in digital systems architecture class with Verilog. Built finite state machine for control and transitioning between image processing states.

Interests

Creative writing	Fiction, poetry
Music	Violin, opera singing