

Nandeeka D Nayak

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GRADUATE EDUCATION

University of Illinois, Urbana-Champaign
Computer Science, Ph.D.
GPA: 4.0

Expected May 2026

Relevant Coursework

Fall 2022: Numerical Analysis

Completed: Languages and Compilers for Edge Computing, Applied Parallel Programming, Parallel Computer Architectures, Advanced Compiler Construction, Computer Systems Organization, Advanced Computer Security

UNDERGRADUATE EDUCATION

Harvey Mudd College, Claremont, CA
Computer Science, B.S.
GPA: 3.96

May 2020

Relevant Coursework

Computer Science Clinic, Algorithms, Compiler Design, Programming Languages, Artificial Intelligence, Operating Systems, Software Development, Computer Security, Computability and Logic, Computer Systems, Data Structures/Program Development, Quantum Information, Advanced Computational Biology, Discrete Mathematics, Linear Algebra, Differential Equations, Multivariable Calculus
Audited: Stanford's Convolutional Neural Networks for Visual Recognition

HIGH SCHOOL EDUCATION

Henry M. Gunn High School, Palo Alto, CA
High School Diploma
GPA: 4.0; Weighted GPA: 4.49

Jun 2016

PUBLICATIONS

Jose Rodrigo Sanchez Vicarte, Pradyumna Shome, **Nandeeka Nayak**, Caroline Trippel, Adam Morrison, David Kohlbrenner, and Christopher W. Fletcher. Opening pandora's box: A systematic study of new ways microarchitecture can leak private data. In *2021 ACM/IEEE 48th Annual International Symposium on Computer Architecture (ISCA)*, pages 347–360, 2021.

Nandeeka Nayak, Makoto Nara, Timmy Gambin, Zoë Wood, and Christopher M. Clark. Machine learning techniques for auv side-scan sonar data feature extraction as applied to intelligent search for underwater archaeological sites. In Genya Ishigami and Kazuya Yoshida, editors, *Field and Service Robotics*, pages 219–233, Singapore, 2021. Springer Singapore.

AWARDS AND ACHIEVEMENTS

SURGE Fellowship	2020-2025
Computer Science Departmental Honors (Harvey Mudd College)	2020
Graduate with High Distinction (Harvey Mudd College)	2020
NSF Graduate Research Fellowship Program Honorable Mention	2020
Wing and Ellen Tam Award for Excellence in Software Development	2019
Harvey Mudd Merit Scholarship	2016-2020
National Merit Scholarship Finalist	2016
NCWIT Award for Aspirations in Computing Certificate of Distinction Winner	2016
NCWIT Award for Aspirations in Computing National Runner-Up and Affiliate Award Winner	2015
Girl Scout Gold Award Recipient	2015

POSITIONS

Research Intern, NVIDIA, Santa Clara, CA

May 2022 - Aug 2022

- Project to be determined

Member of Technical Staff Intern, Qumulo, Seattle, WA

May 2020 - Jul 2020

- Designed and implemented the infrastructure to support flow controlling on the length of the write-ahead log (WAL) in Qumulo's distributed file system
- Investigated the root cause of both performance issues observed internally and those experienced by customers
- Rewrote parts of the block system in Rust and integrated it with the existing C code base

Machine Learning Intern, Miso Robotics, Pasadena, CA

May 2019 - Aug 2019

- Performed semantic segmentation using convolutional neural networks on images of pizzas to describe the specific locations of toppings, the crust, and background
- Used the generated masks to localize the pizza in real space as well as describe how it could be improved
- Helped to implement a ROS node to pass the information to the robot and perform localization and error correction

Researcher, Lab for Autonomous and Intelligent Robotics, Harvey Mudd College

Nov 2017 - May 2020

- Planned missions to survey new regions of the sea floor using the OceanServer IVER3 AUV
- Used data augmentation and convolutional neural networks with OpenCV and Tensorflow to automatically identify shipwrecks from side scan sonar images
- Wrote a paper on a new automatic target recognition pipeline and presented it at Field and Service Robotics (FSR) 2019

Teaching Assistant, Edhesive, New York, NY

Aug 2016 - May 2020

- Tutored students from hundreds of schools in 47 states and 11 countries online in Introduction to Computer Science and AP Computer Science Principles
- Explained specific concepts to students, help debug code, and provide technical support
- Helped with curriculum development including proof-reading exams, rewriting test questions, and creating solution manuals

Identity and Access Management Intern, Visa, Foster City, CA

May 2017 - Aug 2017

- Configured ForgeRock's OpenAM to manage access to a web application
- Used new authentication mechanisms, like OATH and PIV, to demonstrate strong second-factor authentication
- Built a web application with AngularJS on the front-end and Java on the back-end

Creator and Organizer, Programming Camps, San Jose, CA (goo.gl/0ZDTbE)

Feb 2014 - Jul 2016

- Organized 5 free, weeklong programming camps for underrepresented students
- Designed the curriculum in MIT App Inventor and led a group of over 100 volunteers to teach it
- Earned the Girl Scout Gold Award

Programming Director and Member, Space Cookies, Mountain View, CA

Aug 2012 - Jul 2016

- Participated in FIRST Robotics Competition in the fabrication and programming teams for 4 years
- Served on the leadership team for 2 years
- Redesigned the team's programming teaching curriculum and tripled the size of the programming team

Teaching Assistant, AP Computer Science, Gunn High School, Palo Alto, CA

August 2015 - June 2016

- Worked with students who needed extra support
- Helped develop the next year's curriculum by writing a potential final project