NIDHYA SHIVAKUMAR

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EDUCATION & COURSEWORK

UC Berkeley - B.S. Electrical Engineering & Computer Science (EECS) **Expected June 2026**

- M.E.T. Scholarship Recipient: $10,000 for 4 years
- Related Coursework: CS61A: Struct. and Interp. of Comp. Progs., CS61B: Data Structures, EECS16A/B: Designing Info. Devices and Systems I/II, Math 53: Multivar. Calc., CS70: Discrete Math and Probability Theory, CS61C: Great Ideas of Computer Architecture, CS170: Efficient Algorithms and Intractable Problems, EECS127: Optimization Models in Engineering, CS161: Computer Security, CS189: Introduction to Machine Learning, Physics 7B for Scientists and Engineers, CS180: Computer Vision, CS182: Deep Neural Networks, EECS183: Natural Language Processing
- Coursework by Spring '26: CS162: Operating Systems, CS185: Deep Reinforcement Learning, CS168: Networking

The Harker School, San Jose, CA - AP Scholar with Distinction, GPA: 4.46/4.8 **2009 - 2023**

- Related Coursework: Advanced Topics in CS - Computer Architecture, Compilers & Interpreters, Neural Networks, Advanced Topics in Math - Multivariate Calculus, Discrete Math, Linear Algebra, Differential Equations

EXPERIENCE

Youtube, Inc.: ***Software Engineering Intern,*** Mountain View, CA **May 2025 - August 2025**

- Youtube Trust & Safety Team; built classifier for shopping video/product pairs in accordance with policy; used python, Gemini, Google Colab

UC Berkeley AUTOLab: ***Undergraduate Researcher,*** Berkeley, CA **December 2023 – Present**

- Implemented interactive perception and computer vision techniques for robotic cable untangling. Paper accepted to International Conference on Robotics and Automation (ICRA) deformable workshop, first author paper submitted to ICRA 2026. Implementing infrastructure on new robot system for robot policy learning with active mechanical eyeball.

Google, Inc.: ***STEP Intern*****,** Mountain View, CA **May 2024 – August 2024**

- Ads Shopping Infrastructure Team; implemented restrict features to ScaNN deep retrieval model; ran experiments and increased revenue up to 10% in some regions; used C++ & search ads productionized infrastructure.

Stanford ILIAD Lab: ***Research Intern*****,** Stanford, CA **June 2022 – December 2022**

- Built robot simulations, collected data, trained behavior cloning AI models with language corrections to allow robots to perform household tasks; Co-author on paper published in IEEE Conference

AI Research: ***Independent Researcher*****,** Cupertino, CA **August 2021 – December 2022**

- Real-Time Analysis of Aerial Images Using Deep Learning to Identify Critical Areas Requiring Immediate Assistance in Natural Disasters, Synopsys Science Fair 1st Award, Solo-author paper published in IEEE International Conference

VEX Robotics Team 315Y Paradigm: ***Team Captain,*** Cupertino, CA **June 2016 – May 2023**

- Team Captain, Designer, Builder, and Chief Programmer. Create a robot to address a yearly challenge, won 33 awards total including 2021 High School World Champion (#1 out of 4651 teams worldwide) and 2022 High School Worlds Division Champions (#8 out of 7173 teams worldwide)

PUBLICATIONS

* Equal Contribution

1. Justin Yu*, **Nidhya Shivakumar***, Veena Sumedh*, Josh Zhang, Ethan Ransing, Osher Azulay, Ken Goldberg. HANDLOOM 3.0: Interactive Bi-Directional Cable Tracing Amid Clutter. Published in ICRA 2025 Deformable Objects Workshop, 2025.
2. Yuchen Cui, Siddharth Karamcheti, Raj Palleti, **Nidhya Shivakumar**, Percy Liang, Dorsa Sadigh. "No, to the Right" -- Online Language Corrections for Robotic Manipulation via Shared Autonomy. Published in proceedings of the 2023 ACM/IEEE International Conference on Human-Robot Interaction, 2023.
3. **Nidhya Shivakumar**. Analysis of Aerial Images Using Deep Learning to Identify Critical Areas in Natural Disasters. Published in 2022 2nd International Conference on Robotics, Automation and Artificial Intelligence, 2022.

LEADERSHIP & COMMUNITY IMPACT

Boost Robotics, Cupertino, CA **February 2021 – Present**

Founder & Leader

- Org. to guide students to build first competitive robot, kick-start journey into competitive robotics; 1100+ students & 10 teachers globally completed 12-week course over 4 years; Lead team of 15 student leaders to teach participants

Girl Powered VEX Robotics Workshop, Milpitas, CA **January 2021 – Present**

Lead Organizer

- Recruited volunteers, created curriculum, & presented/em-cee'd 2-day workshop for total 4500+ girls and 1000+ mentors

AWARDS & ACHIEVEMENTS

- Invited Speech at VEX Robotics World Championships Opening Ceremony in Dallas, TX for 8,000+ attendees (May 2022)
- NCWIT National Honorable Mention & Bay Area Winner (July 2022)
- VEX Robotics High School World Champion (May 2021)

PROGRAMMING LANGUAGES & SOFTWARES

- Python, C++, Java, C, RobotC, Dart, Android Dev Studio, Flutter, React, Arduino, PROS (Purdue Robotics Operating System), Jupyter Notebook, Google Colab, Figma, Svelte, HTML, CSS, Javascript, Go, Scheme, SQL