

ROHAN SINHA

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Address: 1309 Arch Street, 94708. Berkeley, California. United States of America.

EDUCATION

University of California, Berkeley – Berkeley, California. 2015 – 2019.

Senior B.S. in Mechanical Engineering and Computer Science. Pi Tau Sigma, Tau Beta Pi member.
Current Cumulative GPA: 3.9.

Lorentz Casimir Lyceum – Eindhoven, Noord-Brabant, The Netherlands. 2009-2015

Graduated Magna Cum Laude from Dutch Pre-University Gymnasium (VWO Gymnasium) public high school. The VWO Gymnasium level makes up approximately the top 4% of all Dutch high school students.

RESEARCH / WORK EXPERIENCE

Researcher, Berkeley Artificial Intelligence Research Laboratory – Berkeley, California. 2019 - present

Research on learning-based control strategies from monocular visual sensing under Professor Benjamin Recht. Developed a model car that races at high speeds in cluttered environments from a single human demonstration.

Researcher, Model Predictive Control Laboratory at UC Berkeley – Berkeley, California. 2018 -present

Research focused on data-driven control algorithms. Currently working on Learning Model Predictive Control (LMPC) strategies with convergence to model-free learned strategies subject to stochastic disturbances under Professor Francesco Borrelli. Previously worked on LMPC for multi-agent autonomous racing.

Software Engineering Intern, Amazon.com Inc. – San Francisco, California. 2018

Software Engineering Intern at Amazon Digital Music. Completed a data engineering project to collect and analyze gigabytes of search traffic and server performance data throughout the Music Search pipeline to monitor and manage the large-scale distributed search cluster system every minute.

Academic Intern for CS 61B, Faculty of Computer Science at UC Berkeley – Berkeley, California. 2018

Lab Teaching Assistant for Computer Science 61B at UC Berkeley. CS61B is a fundamental software engineering course covering OOP, data structures, introductory graph theory, and other essential programming concepts.

Autonomous Driving Engineering Intern, Aptiv (formerly Delphi Automotive) – Mountain View, California. 2017

Summer internship working on Self-Driving Cars for Delphi automotive in the Delphi, Intel/Mobileye, BMW Partnership. Developed and validated high fidelity vehicle dynamics models and utilized them to perform exploratory research projects using nonlinear online estimation techniques such as EKF and UKF.

Researcher, Berkeley Center for Identification and Control – Berkeley, California. 2016 –2017

Independent researcher for Professor Packard in the Berkeley ME department. Research area: Signal Processing in Drones and Quadcopters.

LEADERSHIP EXPERIENCE

Co-Founder and President, Berkeley Goldeneye Student Engineering team – Berkeley, California. 2017 – 2019

Led industry funded automated driving research team. Projects in motion planning and control, obstacle avoidance and target interception, lane detection, object detection/sensor fusion. Collaborated with Professor Borrelli's MPC lab to test and aid in the development of the Berkeley Autonomous Race Car (BARC). Previously founded the team for the NASA Advanced Aerial Vehicle Challenge. Co-authored paper on aircraft design.

Leadership Team at California Sailing Team – Berkeley, California. 2016 – 2017

Member of leadership board/officer on the California Sailing Team. Officers are tasked with organizing practices and regattas, managing the 15 ship fleet, controlling the team's finances and spending, maintaining corporate and alumni relations, and leading the team in general.

HONORS and AWARDS

Mechanical Engineering Mechatronics Design Course Project Competition – Berkeley, California. 2019

One of the winners of the ME capstone course competition with the human-collaborative robot Project OLLY.

NASA Aeronautics Advanced Aerial Vehicles Student Challenge – Langley, Virginia. 2017

Winner of third place in NASA student Challenge out of 26 competing teams as President of Berkeley Goldeneye. Only student team to win a prize without any aerospace engineering students.

College of Engineering Dean's Honors – Berkeley, California. 2015 -

The top 10% of students in the College of Engineering at UC Berkeley receive the Dean's Honors each semester. Held Dean's Honors for most semesters at Cal so far.

National Physics Olympiad – the Netherlands. 2015.

Ranked in the top 10 in the National Dutch Physics Olympiad, out of all 900.000 Dutch high school students.

SKILLS and INTERESTS

Languages: Fluent in English, Dutch. Proficient in French, German. Extensive knowledge of Ancient Greek.

Technical software skills: Python, Java, C/C++, Matlab, ROS, RISC-V, JS, Autocad, Solidworks, Simulink.

Sports/Hobbies: Sailing, Snowboarding, Field Hockey, Soccer, Making Electronic Music, Cooking, and Travelling.

Interest areas: Robotics, Dynamic Systems & Control Theory, Machine Learning, Optimization, Autonomous Systems, Aerospace and Automotive vehicles.