

TANISH JAIN

EDUCATION

University of California, San Diego

Bachelor of Science – Graduated March 2020

Overall GPA: 3.93 / 4.00

Major: Electrical Engineering

Minor: Business

Major GPA: 4.00 / 4.00

Major Depth: Machine Learning and Controls

Provost Honors: Fall 2016 – Winter 2020

Stanford University

Master of Science – Beginning September 2020

WORK EXPERIENCE

Undergraduate Researcher

UC San Diego – Dr. Jack Silberman's Smart Wheelchair Lab June 2019 – Mar 2020

- Developed low-level controls for an affordable autonomous wheelchair.
- Worked closely with the navigation team to implement mapping and navigation algorithms.

UC San Diego – Dr. Shaya Fainman's Photonics Lab Mar 2019 – June 2019

- Studied epidemic dynamics by using opto-electronically coupled LED arrays as an analogy and running simulations based on laser rate equations.

Instructional Assistant

UC San Diego Electrical & Computer Engineering Department Sep 2019 – Mar 2020

- Tutored undergraduate students in the department's LabVIEW Programming course.
- Aided students in developing finite state-machine systems controlled with LabVIEW.

UC San Diego – Physics Department Jan 2019 – Mar 2020

- Tutored undergraduate students for a Relativity & Quantum Physics course.
- Facilitated discussion and problem-solving sessions with students.

Electrical Engineering Intern

June 2018 – Aug 2018

AECOM

- Created power network designs for large-scale infrastructure projects based on low and medium voltage design parameters.
- Underwent rigorous training in power systems optimization, as well as examination and quality assurance of network layouts.

PROJECT EXPERIENCE

Gait Correcting Insole for Parkinson's Disease Patients Feb 2019 – Present

- Developed an insole for Parkinson's Disease Patients which analyzes gait data and uses machine learning to provide feedback for correcting gait.
- Worked specifically on developing a machine learning algorithm to customize corrective feedback for user.
- Won the Popularity Prize at the UCSD ECE Design Competition '19, as the most voted team by patients, doctors and students.

Micromouse Annual Project – Maze-solving Robot Sep 2018 – June 2019

- Worked in a team of 5 to design a self-directing maze-solving robot.
- Created searching algorithms to program the autonomous robot and ensure effective software-hardware integration.

12" Sub – Autonomous Miniature Submarine Oct 2018 – June 2019

- Developed a miniature research submarine that can run autonomously.
- Implemented machine learning algorithms with microcontrollers to design a low-cost prototype.

Grand PrIEEE Annual Project – Autonomous Vehicle Sep 2017 – May 2019

- Programmed microcontrollers and designed PCBs to build an autonomous, line-following miniature vehicle.
- Awarded the First Place at the Grand PrIEEE Annual Robotics Competition with the fastest autonomous vehicle.

Smart Music Glove – Wearable glove to play virtual instruments Jan 2018

- Used the Qualcomm DragonBoard 410c to design a smart music glove to play virtual musical instruments with hand gestures.
- Received Honorable Mention at the H.A.R.D. Hack competition at the University of California, San Diego.

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 TanishAnilJain

LEADERSHIP

Project Director

Project in a Box (PIB)

June 2019 – Present

- Lead the core technical development arm of the engineering student organization.
- Organize workshops in underserved communities to encourage hands-on engineering skills development

Team Lead & Mentor

IEEE UC San Diego

Sep 2017 – June 2019

- Led a team of 5 to design an autonomous vehicle (Sep 2017 – June 2018).
- Mentored amateur teams to build similar autonomous vehicles (Sep 2018 – June 2019).

RELEVANT COURSEWORK

- Engineering Computation
- Intelligent Systems: Robotics & Machine Intelligence
- Engineering Probability & Statistics
- Linear Systems Fundamentals
- Linear and Nonlinear Optimization with Applications
- Linear Control System Theory

AWARDS & ACHIEVEMENTS

- First Place, Grand PrIEEE Annual Robotics Competition May 2018
- Outstanding Team Lead, IEEE Annual Project June 2018
- Member, Eta Kappa Nu (HKN) – IEEE Honor Society Jan 2019 – Present

SKILLS

TECHNICAL SKILLS

| | |
|-------------|----------|
| Python | C |
| Tensorflow | C++ |
| MATLAB | LabVIEW |
| AutoCAD | EagleCAD |
| 3D Printing | |

SOFT SKILLS

Public Speaking and Presentation
Project Management
Teamwork