

TANISH JAIN

EDUCATION

Stanford University

Master of Science in Computer Science - Fall 2020 - Spring 2022

Artificial Intelligence Track

University of California, San Diego

Bachelor of Science in Electrical Engineering - Graduated March 2020

Machine Learning & Controls Depth **GPA: 3.93/4**

WORK EXPERIENCE

Researcher

UC San Diego - Dr. Tara Javidi's Intelligent Drones Lab **June 2020 - Present**

- Code drone-based Simultaneous Localization & Mapping (SLAM) algorithms, **improving localization accuracy by over 52%** in under 10 weeks.
- Test autonomy and computer vision-based mapping in a simulated environment.

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

- Developed low-level controls for an affordable autonomous wheelchair
- Enhanced wheelchair safety by **reducing response lag from 0.6sec to under 0.02sec** through more efficient and robust code.

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 ran simulations based on laser rate equations.

Instructional Assistant

UC San Diego - ECE Department **Sep 2019 - June 2020**

- Tutored undergraduate students and mentored student project teams in the department's LabVIEW Programming course, **receiving an "Outstanding" rating** from the instructor as well as the students.

UC San Diego - Physics Department **Jan 2019 - Mar 2020**

- Tutored undergraduate students and facilitated discussion sessions for a Relativity & Quantum Physics course, **receiving an "Outstanding" rating** from the instructor as well as the students.

Electrical Engineering Intern

June 2018 - Aug 2018

AECOM

- Optimized power network designs for large-scale infrastructure projects, **reducing power use by 16%** over baseline projections.
- 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 improves gait.
- Developed 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.

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.

+1 (310) 658 3325

tanishj@stanford.edu

 tanish-jain

 tanishjain.github.io

LEADERSHIP

Project Director

Project in a Box (PIB)

Engineering Student Organization
June 2019 - June 2020

- Led 80+ students & managed a **\$40,000 budget** in the organization's technical development arm.
- Organized engineering skills development workshops in underserved communities, for which I received the ECE Department's Service Award.

Team Lead & Mentor

IEEE UC San Diego

Sep 2017 - June 2019

- Led a team of 5 to design an autonomous vehicle, and received the **Outstanding Team Lead** award for exceptional team management.
- Mentored amateur teams subsequently to build similar autonomous vehicles.

RELEVANT COURSEWORK

- Deep Learning
- Engineering Computation
- Intelligent Systems: Robotics & Machine Intelligence
- Engineering Probability & Statistics
- Linear Systems Fundamentals
- Linear and Nonlinear Optimization with Applications
- Machine Learning

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 / C++
Tensorflow	LabVIEW
MATLAB	EagleCAD
AutoCAD	3D Printing

SOFT SKILLS

Public Speaking and Presentation
Project Management
Teamwork