

# Son Tran

sontran[at]berkeley.edu; GitHub: samtron1412; +1 (714) 909 5396

## EDUCATION

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### University of California, Berkeley

Aug 2018 – Present

*Bachelor of Science in Electrical Engineering & Computer Science; GPA: 3.93*

- CS Coursework: Data Structures, Algorithms, Machine Structures, Artificial Intelligence
- EE Coursework: Convex Optimization, Designing Information Systems, Signals and Systems, Robotics

## PROJECTS

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### Visual Navigation in Dynamic Environments for Mobile Robots

Jan 2020 – Present

*UC Berkeley, Computer Vision Lab*

*Berkeley, CA*

- Collaborating with four team members on designing an algorithm and machine learning pipeline for indoor visual navigation
- Implementing the algorithm and architecture, using Python 3, Pytorch, TensorFlow and OpenCV

### The Maze Runner

Aug 2019 – Dec 2019

*UC Berkeley, Robotics Lab*

*Berkeley, CA*

- Programmed a robot using video feedback from an external camera to traverse a maze
- Implemented algorithms on the robot, using Python 2 and ROS (Robot Operating System)

## WORK AND RESEARCH EXPERIENCE

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### Teaching Assistant (TA) for Designing Information Devices and Systems Course

Jan 2020 – Present

*UC Berkeley, Electrical Engineering & Computer Sciences Department*

*Berkeley, CA*

- Assisting professors and collaborating with more than one hundred TAs in maintaining high-quality instruction
- Supporting more than two thousand undergraduates with course materials understanding
- Leading two discussion sessions per week to assist students in reinforcing materials
- Mentoring the students in their achievement of academic success and social engagement

### Undergraduate Research Assistantship

May 2019 – Dec 2019

*UC Berkeley, Electrical Engineering & Computer Sciences Department*

*Berkeley, CA*

- Used LIDAR, depth and RGB cameras to collect over 100 GB of 3D graphical data for developing computer vision algorithms
- Wrote code using Python 3 and Open3D library to process point clouds and image data
- Assisted graduate students in designing hundreds of micro jumping and swimming robots
- Tested the robots to guarantee the designs meet the requirements of performance and safety

### Undergraduate Research Scholarship

Jun 2018 – Aug 2018

*California State University, Fullerton*

*Fullerton, CA*

- Used Apache Spark and Scala to implement and test machine learning algorithms
- Attended collaborative meetings to address issues in implementing the algorithms

### Student Independent Research Internship

Feb 2018 – May 2018

*NASA JPL (Jet Propulsion Laboratory), California Institute of Technology*

*Pasadena, CA*

- Used Kafka Streams framework and Java 8 to implement a streaming application processing real-time data
- Participated in collaborative meetings with experts and team members to design the application
- Applied feedback from users to improve efficiency and user experience of the application

### Software Developer

Aug 2014 – Aug 2015

*RiverCrane Vietnam Inc.*

*Ho Chi Minh, Vietnam*

- Developed a webpage for shop owners to manage items, using Java 7 and SQL databases
- Troubleshoot and resolved bugs in a shopping website with thousands of daily customer visits
- Maintained a Linux server and SQL databases by inspecting configurations and system logs
- Wrote Java unit and integration tests to improve quality of applications

## RELEVANT TECHNICAL SKILLS

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**Programming Languages:** Python, Java, C++/C, bash (shell scripting)

**Technologies:** Git, NumPy, SciPy, Pytorch, TensorFlow, UNIX (Linux, macOS), OpenCV, Open3D

## HONORS AND AWARDS

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### HKN-IEEE Honors Society Member - top 25% of junior-standing EECS students by GPA

Jan 2019

*University of California, Berkeley*

*Berkeley, CA*

### Dean's List

Dec 2018 & May 2020

*University of California, Berkeley*

*Berkeley, CA*

### Cal Alumni Association - Achievement Award Program

Jul 2018

*University of California, Berkeley*

*Berkeley, CA*