Son Tran

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Education

University of California, Berkeley – Expected Graduation: Dec 2020 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

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

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
- Troubleshot 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

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

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

Honors and Awards

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*