

# Loc Vu

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## EDUCATION

University of California, San Diego

B.S. Computer Science

Expected June 2022

Cumulative GPA: 3.84

### • Relevant Courses:

Advance Data Structures

Object-Oriented Design

Software Engineering

Software Tools & Techniques

Systems Programming

Data Science in Practice

## WORK EXPERIENCE

Patent Research Assistant Intern

May 2019 – September 2019

Company: TuSimple, Inc.

- Researched over 1000 existing patents related to autonomous vehicles using Google Patent and USPTO Database in order to categorize the technical focus of competitors
- Established and maintained a database of related competitor patents to effectively characterize the current landscape of a specific patent technical area

## RESEARCH EXPERIENCE

Hyperdimensional Computing onto Embedded Systems

October 2019 – Present

Advisor: Tajana Rosing, UCSD

- Researching the applications of **hyperdimensional computing** on an **embedded device** as a data independent alternative to traditional neural networks-based **reinforcement learning**
- Developing a **autonomous microbot** capable to **following a line** to test the effectiveness of reinforcement learning model

## PROJECTS

Patent Scraper

July 2019 – September 2019

Python, IPython, Google Drive API, PatentView API

- Utilized **PatentView API** to scrape information from **USPTO Database** and generate a corresponding CSV file, uploaded to cloud using **Google Drive API**
- Automated the processes of collecting and generating a patent landscape to increase search efficiency and eliminate the need for manual searches

Robocall Analysis

September 2019 – December 2019

Python, IPython, FCC API

- Analyzed **1.6 million FCC Unwanted Call** complaints from 2014-2019 to explore possible trends through generating visualization using **matplotlib** and evaluating **linear regression** R-squared values
- Concluded no distinguishable trends in robocall activities expect increased quantity in more populated areas

GreenPoint Rated

November 2019 – Present

Node.js, React-Native, expo, JSX

- Developing a mobile for **Build It Green** to track the carbon emissions of a given household and incentivize homeowners to pursue greener alternatives
- Utilizing **Node.js** backend service and **React Native** for cross-platform development

## SKILLS

Programming & Languages:

Python, Java, C/C++

Frameworks & Libraries:

Agile, React, SMTP, Google API

Tools & Methodologies:

Unix/Linux, Git, Continuous Integration, Agile/scrum

OS:

Windows, Linux

Extracurriculars:

Software Developer @ Triton Software Engineering, Lead Researcher @ ERSF