**Loc Vu**

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**EDUCATION**

**University of California, San Diego  *Expected June 2022***

*B.S. Computer Science* ***Cumulative GPA: 3.84***

* Relevant Courses:

Advance Data Structures Software Engineering Systems Programming

Object-Oriented Design Software Tools & Techniques 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**](https://github.com/loc-vu/patent-scraper)*July 2019 – September 2019*

[*Python,*](https://github.com/loc-vu%20/patent-scraper) *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*** *@ ERSP*