# Sneheil Saxena

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## EDUCATION

❖ **University of California, San Diego** **La Jolla, CA**
BS - Mathematics & Computer Science, Provost's Honors (Fall '18) **Expected: June 2020**

## WORK EXPERIENCE

❖ **Software Engineering Intern,** ***Housecall Pro,*** San Diego, CA **Summer 2019**
- Building and improving the website template for home service businesses as part of the "Website Builder" team. Implementing design mockups using **React** and **Material UI**
- Used **Redux** alongside React for client-side state management and form validation leading to better performance by preventing frequent communication between the client and server
- Created server endpoints to perform CRUD actions for different classes and their attributes in **Ruby on Rails**. Implemented tests with **RSpec**

❖ **Software Test Intern,** ***Reliance Jio Infocomm Ltd.,*** Frisco, TX **Summer 2017**
- Developed and implemented extensive **black-box test suite** for the **KaiOS** operating system on Jio Phone using **Python scripts** via an **automated test framework**
- Collaborated with an internationally located QA team, taking feedback on generated reports

## EXTRACURRICULARS & AWARDS

❖ **Sponsorship Lead, Triton Engineering Student Council, UC San Diego** **May 2019-Present**
- Leading the sponsorship team at TESC, a student-org. under the Jacobs School of Engineering to raise funds for events like SD Hacks, UCSD's hackathon with over 750+ attendees every year
- Funds raised also go towards supporting over 40 engineering student-orgs. on campus

❖ **2nd Prize, HackIoT 2018, University of Southern California, LA** **March 2018**
- Worked in a team of 4 (out of 25 teams) on HomeSafeHome, a home monitoring system which monitors door and window access, and has a live camera feed
- Maintains logs of access attempts by unknown entities (unrecognized faces in camera feed) at the door and windows (via sensors). Server front-end displays this information & the camera livestream

## SELECTED PROJECTS

❖ **Recurrent Neural Network for Language Identification** **Sept - Dec 2018**
- Built and trained a character level RNN to classify what language a word is in with ~80% accuracy for 5 languages using Pytorch. Each recurrent unit is an LSTM
- Parsed the corpora using Regex; ran each letter of a specific word through the RNN sequentially and then calculated the loss based on the final output, back-propagating afterwards

❖ **SmartUnlock, IEEE Club Quarterly Project, UC San Diego** **April 2018 - July 2018**
- Worked in a team of 3 to design and implement a system that unlocks the deadbolt on a door based on a two step authentication process: facial recognition and SMS
- SMS sent to mobile device via Django server on a Raspberry Pi after a recognized face is detected by the camera. Door is unlocked via a torque motor (attached to the deadbolt via a string) when user replies with the correct password

## LANGUAGES & FRAMEWORKS

❖ **Proficient:** C++, C, Java, Python, R; **Familiar:** JavaScript, Ruby, MySQL, HTML, CSS, MATLAB
❖ Bash/Unix shell, vim, GDB, Valgrind, Git, Eclipse, PyTorch, React, Redux, RSpec