# SNEHEIL SAXENA

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## EDUCATION

**University of California, San Diego** — **La Jolla, CA**

BS in Mathematics & Computer Science, Provost's Honors (Fall '18), Major GPA: 3.35 — **Expected: June 2020**

## WORK EXPERIENCE

**Software Engineer Intern, *Housecall Pro*, San Diego, CA** — **Summer 2019**

- Implemented design enhancements to the website template for home service businesses as part of the "Website Builder" team using **React** and **Material UI**
- Utilized **Redux** for client-side state management and form validation leading to improved performance by reducing unnecessary communication between the client and server
- Created server endpoints to perform CRUD actions for different classes and their attributes in **Ruby on Rails** and implemented functional 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 offshore QA team, collecting 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 **750+ attendees** every year and Decaf, the winter **engineering career fair**

**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 maintains **logs of access attempts** by unknown entities at the door (unrecognized faces in camera feed) and windows (via sensors) using a **Django** server set up on a **Raspberry Pi**. Server front-end displays this information and **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
- Used **PyTorch** and parsed corpora using **Regex**; ran each letter of a specific word through the RNN sequentially and then calculated the loss based on the final output

**SmartUnlock, IEEE Club Quarterly Project, UC San Diego** — **April – 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 when user replies with the correct password

## LANGUAGES & FRAMEWORKS

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