SNEHEIL SAXENA

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EDUCATION

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

BS in Mathematics & Computer Science, Provost's Honors (FA'18, WI'20, SP'20), Major GPA: 3.4 **Expected: Dec 2020**

LANGUAGES AND FRAMEWORKS

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

WORK EXPERIENCE

Software Engineer Intern, *Housecall Pro*, San Diego, CA **June – Aug 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 in **Ruby on Rails** and implemented functional tests with **RSpec**

Software Engineer in Test Intern, *Reliance Jio Infocomm Ltd.*, Frisco, TX **July – Sept 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 – Nov 2019**

- Lead 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 the 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