#### VISWAAS L. PRABUNATHAN

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# Skills Set

<u>Relevant coursework</u>: Full Stack Web and Native Mobile Application Development, Software Engineering, Machine Learning, Computer Vision, Probability and Statistical models, Business Intelligence

<u>Languages and Tools</u>: React Native, React, NativeScript, Vue.js, Javascript ES6, NodeJS, Bootstrap, ARIA, HTML, CSS, Expo CLI and Nativescript Playground, iOS Testflight, MATLAB, R, MS Excel, Power Bi (DAX), Golang, Erlang, Haskell, Prolog, Python, C++, Java.

## **Projects**

#### Handler [NativeScript (Vue.js)]

ECS 193A: Senior Design Project

July 2020- Present

- Open source, cross-platform (iOS and android), social media where users can assign or perform monetized tasks.
- Taskmasters can create personal conversations with taskers. Uses Facebook OAuth
- **Learning Outcomes**: Full-stack application development, NativeScript, Nativescript Playground and Preview, Facebook Open Authentication, Firebase authentication.

# Sanctuary Chat [React Native]

ECS 193A: Senior Design Project

Jan 2020 - June 2020

- Open source, cross-platform (iOS and android), private social media messenger featuring multi-factor authentication and end to end encryption.
- Users can create personal conversations, group conversations. Messages are deleted from the database once messages reach recipients. Uses asymmetric and symmetric encryption
- Learning Outcomes: Full-stack application development, React Native, NodeJS, Expo, iOS Testflight, Diffie Hellman Key Exchange, AWS Amplify, AWS Dynamo DB, TweetNaCl.js and AWS Cognito.

## Image and Video Recognition [MATLAB]

Mar 2019 - Mar 2019

ECS 174: Computer Vision

- match selected patch with multiple video instances. Recognize objects regardless of size and orientation in the image.
- used SIFT descriptors, local features, category and instance recognition.
- Learning Outcomes: Instance Recognition, Video Compression, Clustering, Image analysis, Linear Algebra

## SeatMe [BootStrapJS, Python]

Winner - Best IoT hack/ Sachacks 2018

17th-18th Nov 2018

- Co-developed, with a team of four, a web application to reserve and view vacant seats in public environments.
- Used pressure and ultrasonic sensor for real-time status of vacancies and occupants.
- Learning Outcomes: Bootstrap and Facebook API, Open Authorization (OAuth2), User-friendly front-end and back-end development.

#### Certifications

## **Machine Learning** [MATLAB]

Stanford University (Coursera online certification course)

Sept 2019 - Nov 2019

- Completed an online course providing an introduction to machine learning, and statistical pattern recognition.
- **Learning Outcomes:** (i) Supervised learning (parametric/non-parametric algorithms, support vector machines, kernels, neural networks). (ii) Unsupervised learning (clustering, dimensionality reduction, recommender systems, deep learning).

## **Education**

## **Bachelor of Engineering in Computer Science and Engineering**

University of California, Davis

Expected Fall 2020

## **Work Experience**

### **Computer Room Consultant**

Sept 2017-Mar 2018

Computer Lab Management at UC Davis

- Provided faculty/students with professional computer consulting and administrative management services.
- Technically assisted with operating systems, network access, printing and software application issues.