# Alex Rasla

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#### **EDUCATION**

### University of California, Santa Barbara, Santa Barbara, CA

M.S. in Computer Science

B.S. in Computer Science | GPA: 3.75

Relevant Coursework: Capstone, Bionic Vision, Deep Learning for Machine Translation, Advanced Data Structures and Algorithms Awards/Certificates: HRL Fellowship Recipient, Technology Management Certificate, Dean's Honors List

#### PERSONAL PROJECTS

SocialSensor, UC Santa Barbara

September 2020 - Present

Expected Graduation: June 2022

- A video conferencing web application for people w/ autism that detects real-time sentiment of participants using machine learning
- Utilized React, Twilio, Python, and facial and speech sentiment models to get accurate sentiment of users; Agile development

NavSB, UC Santa Barbara

April 2019 — June 2019

- Created an interactive map of the UCSB campus and the surrounding area that uses Augmented Reality to allow easier navigation throughout campus
- Learned and developed code in Swift using Xcode, mastered Apple's ARCL Kit and MapKit, and integrated the Mapbox library

## Instruction Pipeline Prediction, UC Santa Barbara

January 2021 — Present

- An exploratory research project uses ML to predict the final state of a microarchitecture's pipeline given a block of instructions
- Implemented using a LSTM model

## Personalized Email Script, Irvine CA

June 2020

- A Python email script that I use to schedule, automate, and personalize my networking meetings
- Tracks amount of emails sent, date, name of the person, company, and whether a response was received in MongoDB

#### WORK EXPERIENCE

## HRL Laboratories, Masters Intern, Malibu, California

June 2021—Present

- Developed a convolutional LSTM autoencoder to detect novel scenarios for an autonomous driving system
- Tuned the individual parameter layers and a created custom loss function in Tensorflow to optimize its reliability and stability
- Ran dozens of CARLA simulation tests to evaluate the accuracy and applicability of the system in real world scenarios

Wimet, Software Development Intern, Buenos Aires, Argentina

June 2019 — August 2019

- Worked alongside the CEO and CTO/Lead Developer to enhance the startup's website
- Created the backend for their administrative site, allowing the company to easily access their events
- Learned to use MySQL, coded in HTML, JavaScript, PHP and utilized the Laravel framework

### NAVCO Security, Computer Technician Intern, Anaheim, CA

June 2018 — August 2018

- Spearheaded a time-sensitive security system upgrade project for Wells Fargo
- Programmed hundreds of hard drives used for the project
- Repaired dysfunctional and/or damaged DVR software and hardware

### **LEADERSHIP**

## UCSB Department of Computer Science, Peer Advisor

*September 2019 — June 2020* 

- Student advisor and departmental assistant for the UCSB computer science department
- Helped students plan schedules and change majors, assisted faculty with logistical issues, informed undergraduates about campus opportunities

### **SKILLS**

**Programming:** Python, C++, JavaScript, Java, Swift, C#, CSS, HTML, MIPS Assembly

Interests: Machine Learning, Computer Vision, Computer Security, Cloud Computing, Distributed Systems, Cryptocurrency, IoT

Technologies: Tensorflow, Docker, OpenCV, Node.js, ARKit, MySQL, Laravel, PHP, Mapbox, MongoDB, Postgres SQL

Languages: Fluency in English, Slovak, and Conversational Spanish