# HOA NGUYEN

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#### **EDUCATION**

## Bachelor's of Computer Science and Linguistics

University of California, Santa Cruz

Jun 2020 GPA: 3.4

Coursework: Algorithms and Abstract Data Types Intro to Data Structures, Artificial Intelligence, Intro to Natural Language Processing, Data Wrangling and Web Scraping, Intro to Software Engineering, Fundamentals of Compiler Design, Introduction to Algorithm Analysis, Comparative Programming Languages, Software Design Project

#### **EXPERIENCE**

## Software Engineer (Senior Design Project)

Jan 2020 - Jun 2020

University of California, Santa Cruz

- Partnered with a small company to build a hands-free conversational chatbot app for people living with diabetes helping them manage and learn more about their diabetes
- Built two critical text-to-speech and speech-to-text components using React Native and a variety of APIs, improving accessibility to those with visual impairments as well
- Collaborated in a team of six practicing Agile software development with Scrum framework

## Linguistics Research Assistant

Oct 2018 - Aug 2019

University of California, Santa Cruz

- Created JavaScript algorithms to iterate through sentence trees using recursion
- Developed a searchable bibliography using JavaScript, HTML, and CSS
- Used PRAAT software to annotate sentences in Basque for tones
- Collaborated on a computational web application that draws syntactic and prosodic trees and compared them against Optimality Theory constraints

#### SKILLS AND INTERESTS

Languages Java, Python, JavaScript, React Native, HTML, CSS, C

Version Control (Git), MongoDB, Flask, Algorithms, Data Structures, Linux Command Line, Object Concepts Other

Customer Service, Research, Data analysis, Heroku

#### PROJECTS

#### Personal Blog

- Built a Heroku deployed responsive personal blog website
- Used Python and Flask for the back-end, HTML and CSS for the front-end, and MongoDB to store and retrieve posts and pictures
- Features an infinite scroll and an email form that sends me emails using Google API

## Information Retrieval-based Question Answering Engine

- Built the question processing and answer extraction features of a QA engine using Python, NLTK, regex, and wordnet
- Applied concepts such as bag of words, coreference, named entity recognition, constituency trees, and dependency trees

## Crowdsourced Anonymity

- Worked with teammates to create an app that anonymizes your personal browsing data through crowdsourcing other's user data
- Created the TCP server and website filter and developed functionality for groupings using Python, Socket, and CSV Practiced Agile software development using Scrum framework with one week sprints