# HOA NGUYEN

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## EDUCATION

*University of California, Santa Cruz* — Jun 2020

**Bachelor's of Computer Science** — GPA: 3.4

**Bachelor's of Linguistics**

**Coursework**: Algorithms and Abstract Data Types • Data Structures • Artificial Intelligence • Natural Language Processing • Data Wrangling and Web Scraping • Software Engineering • Compiler Design • 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

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|---|---|
| **Languages** | Java, Python, JavaScript, React Native, HTML, CSS, C |
| **Concepts** | Version Control (Git), MongoDB, Flask, Algorithms, Data Structures, Linux Command Line Object-Oriented Programming (OOP), Scrum, Agile, Web Scraping, APIs, Virtual Environments |
| **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