# **Henry Nguyen**

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#### **EDUCATION**

## University of California, Santa Cruz

B.A. Computer Science

**Expected**: 04/2021 **Awards**: Honors Society

**Relevant Coursework:** Data Structures and Algorithms, Operating Systems, Web Applications, Object-Oriented Design, Computer Networking, Natural Language Processing, Database Systems

## **TECHNICAL SKILLS**

**Languages:** C, C++, Java, Python, HTML, CSS, JavaScript, SQL(PostgreSQL, noSQL) **Frameworks/Technologies:** Linux, React, AngularJS, Git, MongoDB, Node.js, Express.js, AWS(Associates in progress)

#### **RELEVANT WORK EXPERIENCE AND PROJECTS**

## **PinkNotes** | React, Node.js, Express.js, MongoDB

- Designed a single-page note taking web application to help students create and organize their notes using MERN technologies
- Built a REST API using Node and Express to create a client-server architecture
- Used Passport.js and jsonwebtoken to authenticate users when calling CRUD operations

### **Custom Blockchain** | *Javascript, Angular*

06/2020 - 08/2020

- Created a blockchain implementation using linked lists and merkle trees in Javascript in order to teach people blockchain technology
- Used the crypto-js library function to create secure hashes for the blocks and added proof-of-work to emulate BitCoin
- Allowed users to interact with the blockchain by implementing a frontend UI in Angular showing the structure of a blockchain and mining new blocks

#### **IMDb Text Classifier** | Python, TensorFlow

01/2020 - 03/2020

- Worked on a team to built software to classify text from an IMDb review dataset using machine learning and NLP to see if the review is negative or positive using Python
- Produced a Keras model that embeds text as a sequence of vectors and transforms that sequence into a vector using a GRU layer, then applying a neural network to see the results
- Optimized the model by 10% by testing hyperparameters such as learning rate, embed size, dropout rates, and epoch size which improved Test Accuracy to 86%

#### Park Heights Pre-School

06/2016-06/2019

• Volunteered every week to work with teachers and care-workers to teach preschoolers English, mathematics, drawing, writing, etc.

#### **EXTRACURRICULARS**

# MSI Study Group Leader

01/2020 - 06/2020

- Tutored other undergraduates in UCSC programming Python courses.
- Held a group session every week to help students with their Python coursework and general coding questions