# Nicholas Chung

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## **EDUCATION**

## Masters in Computer Science, UCI (GPA: 3.90)

Oct. 2020 - Dec. 2021

• Completed courses: Data Structures, Machine Learning and Data Mining, Neural Networks and Deep Learning, Fundamentals of Algorithms, Capstone Project

Bachelors in Electrical Engineering, UCLA

Sept. 2013 - Jun. 2017

## **PROJECTS**

## Climbing Assistant, [Tensorflow, Flutter, Dart]

Aug. 2021 - Present

Mobile application using computer vision to estimate orientation and extrapolate center of mass

- Developing in Flutter to incorporate Tensorflow pose estimation model with base application
- Meeting regularly with two professors to review progress and action items for subsequent sprints

## Obi Wan Coursenobi, [React, Javascript, Python, MongoDB]

Apr. 2021 - May. 2021

Capstone project and web application using MERN stack to visualize academic course dependencies

- Designed webpage layout and used Agile methodology to complete development within 3 sprints
- Implemented directed network graph using D3.js to illustrate class pre-requisite dependencies
- Developed front-facing application to capture user interactions and present web features complementary to the network graph

## **Timbre Transfer**, [Tensorflow, Python]

Jan. 2021 - Mar. 2021

Deep learning project utilizing CycleGAN to change the timbre of a melody

- Pre-processed note samples from Magenta NSynth database to generate spectrogram dataset
- · Modified existing architecture to accept single-channel inputs and to mitigate checkboarding

## **Stock Prediction**, [C++, Tensorflow, Python]

Jan. 2021 - Mar. 2021

Deep learning project using LSTM layers to predict stock prices and compile a portfolio

- Reduced, regrouped, and formatted 20GB of stock transactions as input for machine learning
- Constructed LSTM model and used it in conjunction with optimal stopping to decide on best price

## **EXPERIENCE**

## **Proposal Analyst**, *Northrop Grumman (T2)*

Aug. 2019 - Sept. 2020

- Developed a Visual Basic tool set to automate the requirements decomposition process
- Managed multiple multimillion-dollar competitive proposal and white paper efforts

## **Sensors Engineer**, Northrop Grumman (T2)

Jul. 2018 - Aug. 2019

- Integrated cRIO and PC hardware with high-speed centrifuge to gather metrics on accelerometers
- Developed SQL and MATLAB scripts to mine Oracle database and analyze gyroscope parameters
- Collaborated with off-site and on-site teams to manage scheduling through GANTT charts

## **Associate Embedded Software Engineer**, Northrop Grumman (T1)

Iul. 2017 - Iun. 2018

- Developed a MATLAB tool set to automatically generate a high-level systems interface diagram
- · Generated bi-directional traceability matrices (DOORS) and compiled software design documents

## SKILL PROFICIENCIES

- Language Competencies: C++, React/Javascript, Python, SQL, Flutter/Dart
- Auxiliary Proficiencies: MATLAB/Simulink, VBA, Git, LabView, HTML/CSS, DOORS