# CHRISTOPHER DINH

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## EDUCATION

UNIVERSITY OF CALIFORNIA, IRVINE, Irvine, California

Master of Computer Science, Expected December 2020, GPA: 4.0 / 4.0

Relevant Coursework: Advanced Programming & Problem Solving, Data Structures, Introduction to Al

Expected Coursework: Algorithms, Data Management, Machine Learning, Deep Learning, Parallel Computing

UNIVERSITY OF MARYLAND - BALTIMORE COUNTY, Catonsville, Maryland

B.S., Computer Science - Data Science Track, 2015-2019, Major GPA: 4.0 / 4.0

B.S., Mathematics, 2015-2019, Major GPA: 3.9 / 4.0

magna cum laude, GPA: 3.8 / 4.0

Relevant Coursework: Software Engineering, Introduction to ML, NLP, Intro to Computer Vision, Intro to Data Science

#### TECHNICAL SKILLS

Languages: Python (Expert), C++ (Proficient), Java (Proficient), C# (Prior Experience)

Web Development: JavaScript, HTML / CSS

Libraries: Anaconda, PyTorch, TensorFlow, D3.js, OpenCV, Scikit-learn, Pandas, NumPy

Other: Jupyter, Git, Visual Studio Code, GDB, Linux / Unix, MySQL

## EXPERIENCE

IBM, Rochester, Minnesota

Software Engineering Intern, Cloud Managed Application Systems, 6/2018 – 8/2018

- Enabled SAP build teams to track their progress and find bottlenecks by designing and implementing a Gantt chart visualization of the SAP build process using node.js, JavaScript, d3.js, PUG, and CSS.
- Learned and practiced Agile software development practices

# MANTAROBOT CORP, Germantown, Maryland

Summer Intern, 6/2014 - 8/2014, 6/2015 - 8/2015, 6/2016 - 8/2016, 6/2017 - 8/2017

- Designed and implemented an OpenCV-based system in C# that uses a camera to automatically dock a robot with its charging station from up to 7 feet away with an angular error of less than 10 degrees and a linear error of less than 3 inches.
- Decreased control latency for a telepresence robot by an average of 50% by implementing WebRTC as a control method both in the browser and in an Android app.

## SOFTWARE ENGINEERING PROJECTS

# Capsule Network vs Convolutional Network ● 1/2018 – 5/2018 ● Computer Vision Course Project ● Code

Showing that Capsule Networks are more robust to homographies than Convolutional Networks using GPU Accelerated PyTorch

- Generated a dataset by randomly transforming logos to test homography invariance
- Reached 73% classification accuracy with the CapsNet while the ConvNet only reached 18% despite the ConvNet using 10x more parameters than the CapsNet.

# Sequence Generator ● 1/2017 – 5/2017 ● Personal Project ● Code ● Demo

Text generator using an LSTM to mimic a text corpus

- Built a Tensorflow-based LSTM architecture based on Andrej Karpathy's char-rnn that generates arbitrary-length text mimicking whatever text corpus it is trained on.
- Built a demo in Javascript from scratch that uses a pretrained model to generate text based on the works of Shakespeare

## Google CodeU ● 3/2017 – 5/2017 ● Code

Invite-only program working on a team with 2 other students supervised by a Google engineer

- Implemented features for a chat application in Java including multithreaded update polling and storage of server state in a SQLite database through JDBC.
- Participated in regular code reviews and learned industry practices including unit testing, trunk-based development, collaboration using GitHub, and uniform code style.