

# COREY KARNEI

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## EDUCATION

<b>The University of Texas at Austin</b>	Masters of Science, DICE (Decision, Information, and Communications Engineering)	May 2022
	Bachelor of Science, Electrical and Computer Engineering	May 2021
	Business Minor, Business Foundations	
	Electrical Engineering Honors Program	
	Overall GPA: 3.6	

## ADDITIONAL INFORMATION & SKILLS

**Programming Languages:** Python, Java, C/C++, HTML, JavaScript, CSS, Verilog

**Relevant Completed Coursework:** Data Science Principles, Data Science Lab, Algorithms, Software Design I, II, & III

**Software:** TensorFlow, PyTorch, AWS, Git, MS Office, Autodesk Inventor, LabView

**Machines:** Oscilloscopes, Signal Generators, Milling, Soldering, 3D Printing

**Work Eligibility:** Eligible to work in the U.S with no restrictions

## ACADEMIC PROJECTS

**Data Science Lab - Disease Detection in Human Eyes** Fall 2020

- Trained several Convolutional Neural Networks to classify diseases based on images of the eye
- Compiled a dataset containing 6 diseases and over 5,500 fundus photos of retinas
- Achieved >95% accuracy when predicting each disease class individually, and >87% in a multiclass setting

**Activity Sensing - Tracking Medication Adherence Project** Fall 2020

- Created a prototype smart pill-bottle that uses cameras and inertial sensors to detect pill-taking moments
- Implemented Convolutional Neural Network and Random Forest models on the video and inertial data respectively
- Winner of the 'Best Final Project' Award

## WORK EXPERIENCE

**UT Center for Transportation Research - Research Intern; Austin, TX** Fall 2020

- Predicted pavement quality in Python by performing linear regression on tabular data
- Wrote Loss Functions for isolating the joints between slabs of pavement

**MindMesh Tech - Data Science Intern; Houston, TX** Summer 2020

- Performed linear and nonlinear regression using Python to predict the lifespan of oil drilling tools
- Tested and Identified bugs in MindMesh's flagship software

## LEADERSHIP EXPERIENCE AND ACTIVITIES

**Theta Tau Engineering Fraternity - Active Member** Spring 2020

- Voted treasurer of our pledge class by my peers
- Oversaw fundraising events and approved budget for our Pledge Party

**McCombs Summer Institute - 9 Week Intensive Business Minor Program** Summer 2019

- Completed five business courses including: Accounting, Finance, Management, Marketing, and Entrepreneurship
- Competed on a team of my peers against the rest of the program in running a simulated business
- Led my team to being 1st in overall score, market share, and financial performance as company President

**Study Abroad Maymester - Milan, Italy** Summer 2018

- Studied Engineering Communications and U.S. Government while also traveling the country on weekends
- Collaborated with peers on a 10-page paper about applications of highly transformative technologies

**Business Professionals of America - State Qualifier in Two events** Spring 2017

- Website Design Team: 1<sup>st</sup> in District and 11<sup>th</sup> in State
- Computer Security Test: 3<sup>rd</sup> in District and advanced to State