

COREY KARNEI

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EDUCATION

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

SKILLS

Programming Languages: Python, Java, C/C++, HTML, JavaScript, CSS, Verilog
Relevant Courses: Data Science Principles, Data Science Lab, Activity Recognition, 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

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| Data Science Lab - <i>Disease Detection in Human Eyes</i> | Fall 2020 |
| <ul style="list-style-type: none">• 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 - <i>Tracking Medication Adherence Project</i> | Fall 2020 |
| <ul style="list-style-type: none">• 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 out of 12 teams | |

WORK EXPERIENCE

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| UT Center for Transportation Research - <i>Research Intern; Austin, TX</i> | Fall 2020 |
| <ul style="list-style-type: none">• 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 - <i>Data Science Intern; Houston, TX</i> | Summer 2020 |
| <ul style="list-style-type: none">• 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

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| Theta Tau Engineering Fraternity - <i>Active Member</i> | Spring 2020 |
| <ul style="list-style-type: none">• Co-Chair on the Brotherhood Committee• Voted treasurer of pledge class by my peers | |
| McCombs Summer Institute - <i>9 Week Intensive Business Minor Program</i> | Summer 2019 |
| <ul style="list-style-type: none">• 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 - <i>Milan, Italy</i> | Summer 2018 |
| <ul style="list-style-type: none">• 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 - <i>State Qualifier in Two events</i> | Spring 2017 |
| <ul style="list-style-type: none">• Website Design Team: 1st in District and 11th in State• Computer Security Test: 3rd in District and advanced to State | |