

# Kobee Raveendran

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## EDUCATION

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### University of Central Florida

M.S. in Computer Science, Concentration in Machine Learning

Orlando, FL

Aug. 2020 – Dec. 2021

### University of Central Florida

B.S. in Computer Science, Mathematics Minor, GPA: 3.83/4.00

Orlando, FL

Aug. 2016 – May 2020

## EXPERIENCE

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### Major League Hacking

Software Engineering Fellow

Remote

Oct. 2020 – Dec. 2020

- Selected as one of 160 out of 10,000+ applicants for the Fall 2020 cohort of the MLH Fellowship, in a pod sponsored by the U.S. Department of Defense
- Developing an NLP-based learning solution for members of the U.S. Navy to practice voice commands and evaluate their performance

### University of Central Florida

Researcher at the Connected and Autonomous Vehicles Research Lab (CAVREL)

Orlando, FL

Jan. 2020 – Aug. 2020

- Worked under Dr. Yaser Fallah and the PhD students in CAVREL on the perception (lane-finding, 3D object detection) components of connected self-driving vehicles.

### University of Florida

Researcher at the NanoScape Lab, UF SURF Program

Gainesville, FL

May 2019 – Aug. 2019

- Worked under Dr. Swarup Bhunia and Prabuddha Chakraborty to develop and improve on a novel image compression algorithm using machine learning for triangulation acceleration via point prediction.
- ML model development and testing was done in Python using Keras for prototyping, and color quantization and dequantization methods were implemented in C++.

### The Walt Disney Company

Machine Learning Engineer Intern

Orlando, FL

Jan. 2019 – May 2019

- Researched and implemented components of a machine learning model for predicting user interest in products using a corpus of product descriptions.
- Tested, demonstrated, and reviewed the viability of new machine learning tools for approval of use within Walt Disney Parks and Resorts (WDPR).
- Developed tools for tokenization and user authentication into WDPR using Python and JavaScript.

## SKILLS

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- **ML Development:** PyTorch, Keras, TensorFlow
- **Data Science:** NumPy, pandas, scikit-learn, matplotlib, spaCy
- **Web Development:** Flask, Django, React
- **Mobile Development:** Android Studio
- **Software Engineering:** Git, UNIX command line

## LANGUAGES

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- **Python:** Advanced
- **C++:** Intermediate
- **JavaScript:** Intermediate
- **Java:** Intermediate

## PROJECTS

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You can view more of my projects and the source code of public projects by viewing my [Github repositories](#).

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|--|-------------|
| <b>Headstone Photo Processing System</b> – Electron, React, Redux, SQLite, TensorFlow  | 2019 – 2020 |
| Desktop application made to extract visually-challenging text from headstone images and  |             |
| <ul style="list-style-type: none"><li>match each image to an entry in a cemetery database. Consisted of components such as flexible text extraction via AttentionOCR, automatic headstone cropping and rotation detection (with correction).</li></ul> |             |
| <b>Intelligent Voice Learning Tutor</b> – Python, React Native (in-progress)   | 2020        |
| Desktop and mobile app designed to help members of the Navy learn and practice   |             |
| <ul style="list-style-type: none"><li>voice commands. Will include performance evaluation and guided progression through a curriculum set by Naval instructors.</li></ul>  |             |
| <b>Faster Pix2Pix</b> – Python, PyTorch  | 2018        |
| <ul style="list-style-type: none"><li>Training speed-oriented improvement on Philip Isola et. al's cGAN-based Pix2Pix network for conditional image-to-image translation.</li></ul>  |             |
| <b>CheersM8.tk</b> – JavaScript, ReactJS   | 2020        |
| <ul style="list-style-type: none"><li>Dead simple, room-based group video chat web application. Supports up to 4 people per room.</li></ul>  |             |
| <b>Curved Lane Finding</b> – Python, cv2   | 2020        |
| <ul style="list-style-type: none"><li>General pipeline using foundational computer vision techniques for identifying and labeling lane lines, lane curvature, and vehicle offset.</li></ul>  |             |
| <b>Youtube2MP3</b> – Python  | 2018        |
| <ul style="list-style-type: none"><li>Desktop application written in Python that converts YouTube videos or entire playlists into MP3 files.</li></ul>   |             |

## SCHOLARSHIPS AND AWARDS

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|---|-------------|
| <ul style="list-style-type: none"><li>National Merit Scholarship Award</li></ul>          | 2016 – 2020 |
| <ul style="list-style-type: none"><li>Benacquisto Scholarship</li></ul>                   | 2016 – 2020 |
| <ul style="list-style-type: none"><li>Bright Futures Academic Scholar (FAS)</li></ul>     | 2016 – 2021 |
| <ul style="list-style-type: none"><li>Bright Futures Academic Top Scholar</li></ul>       | 2016 – 2020 |
| Awarded to the student ranked highest academically in each county, in addition to the FAS |             |
| <ul style="list-style-type: none"><li>UCF President's Honor Roll</li></ul>                | 2017 – 2020 |
| <ul style="list-style-type: none"><li>CECS Dean's List</li></ul>                          | 2017 – 2020 |
| <ul style="list-style-type: none"><li>International Baccalaureate Diploma</li></ul>       | 2016        |

## ORGANIZATIONS AND EXTRACURRICULAR ACTIVITIES

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| <ul style="list-style-type: none"><li>Fellow at Major League Hacking</li></ul>                                    | 2020        |
| <i>Working on software projects sponsored by the U.S. Department of Defense for the Tour of Duty program.</i>     |             |
| <ul style="list-style-type: none"><li>Member of SIGAI@UCF</li></ul>   | 2018        |
| <i>Applied exploration of foundational and recent approaches in various subfields of artificial intelligence.</i> |             |
| <ul style="list-style-type: none"><li>Member of HACK@UCF</li></ul>  | 2016 – 2018 |
| <i>Weekly dive into fun cybersecurity-related topics, accompanied by live demos and walkthroughs.</i>             |             |
| <ul style="list-style-type: none"><li>Member of the Burnett Honors College at UCF</li></ul>                       | 2016 – 2019 |