Kobee Raveendran

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Education

University of Central Florida — Orlando, FL
M.S. in Computer Science, Concentration in Machine Learning — Aug. 2020 – Dec. 2021

University of Central Florida — Orlando, FL
B.S. in Computer Science, Mathematics Minor, GPA: 3.83/4.00 — Aug. 2016 – May 2020

Experience

Major League Hacking — Remote
Software Engineering Fellow — 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 — Orlando, FL
Researcher at the Connected and Autonomous Vehicles Reseaerch Lab (CAVREL) — 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 — Gainesville, FL
Researcher at the NanoScape Lab, UF SURF Program — May 2019 – Aug. 2019

- Worked under Dr. Swarup Bhunia and Prabuddha Chakraborty to develop and improve on a novel image comporession 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 — Orlando, FL
Machine Learning Engineer Intern — 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

- **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

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

Projects

You can view more of my projects and the source code of public projects by viewing my Github repositories.

- **Headstone Photo Processing System** – Electron, React, Redux, SQLite, TensorFlow 2019 – 2020
  Desktop application made to extract visually-challenging text from headstone images and 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).

- **Intelligent Voice Learning Tutor** – Python, React Native (in-progress) 2020
  Desktop and mobile app designed to help members of the Navy learn and practice voice commands. Will include performance evaluation and guided progression through a curriculum set by Naval instructors.

- **Faster Pix2Pix** – Python, PyTorch 2018
  Training speed-oriented improvement on Philip Isola et. al's cGAN-based Pix2Pix network for conditional image-to-image translation.

- **CheersM8.tk** – JavaScript, ReactJS 2020
  Dead simple, room-based group video chat web application. Supports up to 4 people per room.

- **Curved Lane Finding** – Python, cv2 2020
  General pipeline using foundational computer vision techniques for identifying and labeling lane lines, lane curvature, and vehicle offset.

- **Youtube2MP3** – Python 2018
  Desktop application written in Python that converts YouTube videos or entire playlists into MP3 files.

Scholarships and Awards

- National Merit Scholarship Award 2016 – 2020
- Benacquisto Scholarship 2016 – 2020
- Bright Futures Academic Scholar (FAS) 2016 – 2021
- Bright Futures Academic Top Scholar 2016 – 2020
  Awarded to the student ranked highest academically in each county, in addition to the FAS
- UCF President's Honor Roll 2017 – 2020
- CECS Dean's List 2017 – 2020
- International Baccalaureate Diploma 2016

Organizations and Extracurricular Activities

- Fellow at Major League Hacking 2020
  Working on software projects sponsored by the U.S. Department of Defense for the Tour of Duty program.
- Member of SIGAI@UCF 2018
  Applied exploration of foundational and recent approaches in various subfields of artificial intelligence.
- Member of HACK@UCF 2016 – 2018
  Weekly dive into fun cybersecurity-related topics, accompanied by live demos and walkthroughs.
- Member of the Burnett Honors College at UCF 2016 – 2019