Kevin Kuo

linkedin.com/in/kevinkuo52 | kevintkuo.com | github.com/kevinkuo52

ktk5135@psu.edu | 929-286-6373 | 2514 Girdwood Rd. Timonium MD,21093

EDUCATION

PENNSYLVANIA STATE UNIVERSITY | B.S in Computer Science   Expected May 2021

College of Engineering | University Park | State College, PA | GPA: 3.1 / 4.0

SKILLS

Python < Preferred > // Java // JavaScript // C // C++ // Linux // OpenCV // Scikit-learn   // Tensorflow

WORK EXPERIENCE

D.A.T.A LAB | Android App Developer   Oct 2018 – Jan 2019 | Leonhard Building, State College, PA

- Worked on the development of an Android app that calculates the heart rate through patient's face for the Bill and Melinda Gates Foundation.
- Translated kalman filter and signal processing algorithms from Python into static proxies using Chaquopy in order to implement the code into Java.
- Implemented Singleton design pattern in Java to improve the architecture of the application for real time data visualization.

LUNAR LION | Software Engineering Intern   May 2018 – Aug 2018 | Research Center C, State College, PA

- Created the communication system in Python for Peroxide Engine Test Stand to send telemetry & command data between Ground Control Station and Guidance, Navigation, & Control subsystem using ZeroMQ.
- Automated testing procedure by adding the flight profile and debugged the old UI of Ground Control Station.Both in C#.
- Detected failure of the engine by implementing softkill which processed thermocouple, pressure transducer and load cell data readings using Python.
- NASA PA Space Grant Scholarship.

RESEARCH

INTELLIGENT VEHICLE & SYSTEM GROUP | Undergd. Researcher   Jun 2018 – Present | State College, PA

- Classified forearm EMG data into joystick control with butterworth bandpass filter, cube spline interpolation model, Hilbert transform, amplitude envelope function and linear discriminate analysis (LDA).
- Implemented linear discriminate analysis (LDA) and support vector machine (SVM) to classify EEG signals between rest, right hand, and left hand movements using an online EEG motor imagery data set using Python and Scikit-learn.
- Implemented linear regression analysis model of a research paper using linear algebra techniques to filter out unwanted EOG artifact signals from the EEG data set with just Python.

EXTRACURRICULAR ACTIVITIES

DISNEY CONSULTING PROJECT | Project Lead   Aug 2017 – Present | State College, PA

- Lead a team of 6 to create a retrieval based chatbot with personalities based on Disney movie characters using natural language processing (NLP) methods.
- The Chatbot was proposed to the Director and Manager of the Data & Analytics at Walt Disney Animation Studios, which successfully received continuation of the project.
- Hackathon: Implemented K-mean Clustering algorithm to compute the optimal coordinates for setting up emergency relief camp, in the event of an natural disaster, given users' critical data gathered by the chatbot.

UNMANNED AERIAL SYSTEM (UAS) | Computer Vision Sub team   Aug 2017 – Present | State College, PA

- Created drone's software to detect targets on the ground given the camera feeds.
- Extracted the relevant areas of interests in the images using OpenCV's saliency algorithm, currently building a synthetic image data set for training the convolution neural network.

PERSONAL PROJECT

FACEBOOK AI CHATBOT | Response Generation & Sentiment Analysis   July 2017 – Present

- Utilizes Messenger's UI to generate conversations with users and perform sentiment analysis on each utterance.
- Using Sequence to Sequence model with attention decoder to generate response based on the previous utterance.
- The neural network is written in python with Tensorflow using the starter code from Stanford CS 20SI's assignment, and the backend is written in node.js with Facebook Chat API.