Vee Upatising

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Computer Engineering graduate with hands-on experience in software engineering and database administration. Diligent self-starter with an interest in Python development concentrated on Data Science and Deep Learning.

EDUCATION

University of Massachusetts Amherst — May 2020
Bachelor of Science in Computer Engineering, GPA 3.18

COURSEWORK

Machine Learning, Artificial Intelligence, Computer Vision, Data Science, Probability, Algorithms, Data Structures, Statistics, Software Engineering, Linear Algebra, Signals and Systems, Circuit Analysis

WORK EXPERIENCE

Fast Enterprises, LLC – Salt Lake City, UT
Implementation Consultant Intern — Summer 2019

- Interned as a developer on the Vehicle and Dealer Registration System used by all DMV offices in Utah
- Performed End-to-End and Stress Testing for various processes within the VADRS program
- Implemented an internal email subsystem within the program to better facilitate in-office communication
- Worked with QA testers to fix critical production errors in a development-testing-staging-production cycle
- Optimized SQL queries by removing site indexes and reworking index scans into index seeks
- Consulted with business analysts to configure the system to their specific needs
- Documented all classes within 75 business critical VB.NET projects
- Trained full-time employees on how to effectively use the Learning Manager subsystem

PERSONAL PROJECTS

View on my GitHub or Kaggle profile

Recycle Bot — Spring 2019

- Designed a system that can classify and physically sort trash and recyclable waste using Keras in Python ported to Raspberry Pi
- Created platform where waste is photographed, classified using Convolutional Neural Network, and sorted using Servo motor
- Achieved successful classification of trash and recyclables tested on most common items improperly discarded in the local area

Music Composition Generative Adversarial Network — Spring 2019

- Trained a system of adversarial neural networks to generate melodies corresponding to different genres of music
- Compiled dataset of MIDI songs and designed algorithm to parse musical data and reshape to dimensions needed
- Designed an embedded system that interfaces with an electronic piano for user I/O and live playback of generated melody

Brain Tumor Detection Convolutional Neural Network — Fall 2019

- Designed a system that detects brain tumors in MRI images and classifies patients into risk or non-risk classes
- Trained Convolutional Neural Network on dataset of brain scans captured and labeled by medical researchers
- Successfully predicts the probability of a patient being in risk of a tumor based on features captured from within MRI scans

Unsupervised Learning Image Segmentation — Fall 2019

- Coded image segmentation program that segments images of food in an unsupervised manner with no labels given
- Preprocessed the images into RGB and HSV color spaces creating a feature matrix to cluster data points on
- Achieved successful results segmenting food from lunch trays using K-Means clustering algorithm

LEADERSHIP

Institute of Electrical and Electronics Engineers, Treasurer — May 2018 – Present
UMass Skateboard Club, Treasurer — Sept 2016 – Present

TECHNICAL SKILLS

SQL Server Management Studio, MySQL, Visual Basic .NET, UNIX, Python, Pandas, Scikit-Learn, NumPy, Prophet, TensorFlow, Keras, Java, C, C++, C#, MATLAB, HTML5, CSS3, JavaScript, MongoDB, AWS