Joowon Kim

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EDUCATION

University of Illinois at Urbana-Champaign   *May 2021*
Bachelor of Science, Computer Science and Economics   *GPA: 3.54/4.0*
Minor: Mathematics

SKILLS

Technologies: Keras, Pandas, NumPy, Django, PostgreSQL, Linux, AWS, Git, Jupyter Notebook
Languages: Python, C++, Javascript, Java
Coursework: Data Structures and Algorithms, Regression Analysis, Statistics, Computer Architecture, Data Science
Programming, Applied Linear Algebra, Artificial Intelligence (Spring), Applied Machine Learning(Spring)

EXPERIENCE

State Farm
Data Science Intern (Part-Time)   *August 2019 – Present*
- Optimizing clustering algorithms in Jupyter Notebook, using Python and the sklearn library
- Exploring various methods to optimize runtime for >18GB files and ~400 different vector combinations
- Congregating different claims processes based on agglomerative clustering, vector distance, shingling
- Learning new industry-standard techniques such as Latent Dirichlet Allocation and Bayesian modeling

State Farm
Software Engineering Intern   *May 2019 – August 2019*
- Constructed corporate data analytics portal using Javascript, Python, Django, PostgreSQL, JSON, and pandas
- Developed analysis tool in software, increasing the efficiency of data search functionality by 100%
- Redesigned information storage in PostgreSQL database to improve analysis for ~1000 data-layered maps
- 2nd biggest contributor to the application, to be used by 6,000+ State Farm executives to make corporate decisions

CS 196 at UIUC
Director of Project Management   *August 2018 – Present*
- Directing all 35 project managers for the 210 computer science students in the CS 196 Honors course
- Managing as scrum master using skills such as Python, Java, machine learning and front-end development
- Installed new and rigid grading system and hiring/interview methods, while keeping an effective 1:7 student-PM ratio

PROJECTS

NBA Progress Prediction   *Present*
- Utilizing PyTorch, keras, pandas, NumPy, and basketball API to predict the best performers for the 2020 NBA Season
- Implementing linear-regression neural network using training data from past years to identify player progression
- Exploring ways to integrate non-linear regression within deep neural network to acquire more accurate predictions

AWS Email Bot   *July 2019*
- Built a Python script using libraries such as schedule and smtplib to develop a subscription-type email bot
- Running the script continuously for 100 days by implementing the Amazon Web Services' EC2 instance
- Implemented data structures supporting constant runtime, making user data processing easier and more efficient

BriovaRx Patient Center Application   *February 2019*
- Placed Top 3 for UnitedHealth Group's Challenge at HackIllinois 2019
- Designed using Apache Cordova and Javascript, with separate p2p data channel video chat demo with WebRTC
- A proof of concept to be potentially used for self-diagnosis of 1000s of chronically diseased patients.

INTERESTS AND HOBBIES

Playing basketball or golf, losing in fantasy sports, going to social events, and gaming