SOHYUN PARK

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EDUCATION

University of Illinois at Urbana-Champaign   *Aug. 2020 – May. 2024 (Expected)*
Bachelor of Science in Computer Science   GPA: 3.87/4.00
Applied Machine Learning; Artificial Intelligence; Data Structures; Algorithms & Models of Comp; Software Design Studio

WORK EXPERIENCE

Google Software Product Sprint Program,   Google
Student Software Engineer   *May. 2022 – Aug. 2022*
· Designed a Java web application for data sharing between family members for their effective communication
· Developed log-in system, photo gallery, forum, and to-do list utilizing Google cloud storage and data store in a 3-person team
· Received active feedback from Google engineers in a weekly team meeting after a presentation to build a universal web application

Distributed Autonomous Systems Laboratory,   University of Illinois at Urbana-Champaign
Undergraduate Research Assistant   *Jan. 2022 – Present*
· Integrated crop harvesting and pest detection by designing a soft-arm robot using camera radars and Recurrent Neural Network
· Improved accuracy of object recognition AI by 3% with a grid search hyperparameter tuning technique
· Currently refining the delay in movement when target object is found, writing weekly reports regarding improvement made

Science Gateways Community Institute,   Elizabeth City State University
Software Engineer Intern   *Jun. 2021 – Aug. 2021*
· Supported medical professionals to better predict future severity of COVID-19
· Visualized COVID-19 recovery rate trends using Flask, with focus on easy interfacing via CSV
· Implemented filtering and adding notes using Unix script to ease search difficulty of persons in administration system

PROJECTS

HackIllinois 2022: Analyzing & Visualizing Public Opinions on Russian-Ukraine War   *Feb. 2022*
· Identified controversy on the war by retrieving Twitter hashtags through Twitter API
· Performed a sentimental analysis using team's machine learning model on the filtered Twitter posts related to the team's topic
· Developed an interactive website and visualized real time stance of Twitter public opinions in a graph for analysis of the trend
· Received and analyzed user input of thoughts on the war via team's learning model and presented tweets of the similar stance

OpenFlights: Determining Cost Efficiency Between Two Airports   *Oct. 2021 – Dec. 2021*
· Filled a gap in information about the flights considering cost efficiency provided by OpenFlight
· Created a new flight search algorithm that finds the best series of connecting flights based on cost and distance traveled
· Implemented Dijkstra's shortest path algorithm and BFS in C++ to allow faster searching
· Visualized a directed graph that incorporated the graph searching algorithm to determine flights with cost efficiency

Computer Science Course Model   *Sep. 2020 – Dec. 2020*
· Streamlined given feedback to UIUC CS courses via Android app that users could type and search CS courses and rate them
· Interfaced with the school database through JSON file and deserialized it to recover to the original objects of summary
· Designed UI/UX of the app with HTML and CSS to increase readability and performed user testing to receive active feedback
· Established a database with MySQL to store user rates towards the courses and user comments

LEADERSHIP & ACTIVITIES

Coding Club "Codable" at UIUC,   Champaign, Illinois
Vice President   *Aug. 2020 – Present*
· Created a semester-long coursework that leverages members' comprehension in Python that explores important topics including
dynamic programming and parallel programming
· Collected image data by web scraping and implemented image classification using the TensorFlow package
· Presented and code reviewed regarding the progress the team had made each week at the general meeting

SKILLS & ABILITIES

Programming: Python, Java, C++, HTML, CSS, JavaScript, jQuery, jest, MIPS assembly language
Tool/Libraries: MySQL, Pandas, NumPy, Matplotlib, Bootstrap, React, Django, Flask, JUnit, Unittest, Android Development, Git