Kyung Ho (Scott) Kang

(615)-935-0739 | scottkang991103@gmail.com | Linked-in: https://www.linkedin.com/in/scott-kang/
GitHub: https://github.com/scottkang123 | Website: https://scott-kang-website.com

EDUCATION

Vanderbilt University Nashville, TN, USA
Graduation: Dec 2023
BS Computer Science | Minor: Mathematics, Chemistry, Economics
Current GPA: 3.78

Coursework (Computer Science):
Principles of Software Engineer, Machine Learning, Data Visualization, Operating Systems, Project in Virtual Reality Design, Network Analysis in Healthcare, Theory of Automata, Program Design Data Structures, Algorithms, Intermediate Software Design, Programming Languages, Programming & Problem-Solving

Awards & Honors: Dean's List, Yonsei Summer Program Scholarship, Colonel Book Report Awards, Major General award in the training center of the Korean Army, special warrior title for the top performance

Clubs & Organizations: VandyHacks, Multicultural Leadership Council – International Student Storytelling Showcase, Asian American Student Association, Korean Undergraduate Student Association Soccer Team, LNYF festival dance team, Music City Boxing

TECHNICAL SKILLS

- **Computing**: C++, Python, C#, C, Java, JavaScript, MATLAB, Rust, MySQL, Racket, Prolog, NumPy, D3, .Net, React.js, Node.js, Selenium, Matplotlib, Firebase, Azure, MongoDB, Git, Agile, JIRA, TensorFlow, Microsoft Office
- **Math**: Multivariable Calculus, Differential Equation/Linear Algebra, Probability/Statistics, Numerical Math

WORK EXPERIENCE

Stryker, *Software Developer / Software Test Engineer Intern*
MAY 2023 – AUG 2023
- Implemented automated extraction of data from the networking hardware using API requests and TCP sockets.
- Designed a user-interactive GUI featuring a debug window, an export menu, a real-time state table, and a customized summary table to present the extracted data after processing, increasing efficiency by 400 times and saving more than 400 hours/year for the test, service, and installation teams.
- Performed software unit testing by programming automated test cases using the Selenium framework and reported issues in a defect tracking system, JIRA.

Korea, Military Service, *Sergeant*
DEC 2020 - JUNE 2022
- Worked as a translator and an intelligence operation soldier at a command control center.
- Dispatched to Incheon Airport, guiding overseas arrivals with quarantine processes in response to COVID-19.

Denave Korea, *Intern*
JULY 2020 - AUG 2020
- Organized a database to manage Microsoft customers, and informed tech managers of virtual cloud training sessions and important updates regarding Microsoft products.

PROJECTS

Phishing Link Classification (Python, NumPy)
- Implemented a classification system to discern the legitimacy of URLs, utilizing 87 extracted features.
- Used feature selection, dimensionality reduction, and various ML models to train the data. Conducted a comprehensive analysis comparing the accuracy, and time complexity, and created statistical visualizations.

Interactive Data Visualization (JavaScript, D3)
- Designed dynamic user-interactive data visualizations of the raw dataset after filtering and transforming.
- Implemented tSNE scatter plot, tree map algorithms, multiple view composition, parallel coordinates, stacked area marks, and bubble plots. Incorporated user-friendly interactions such as highlighting and data brushing to enhance the user experience.

Full Stack (React, Node.js)
- Created a CRUD app by using Node.js as the backend framework to develop server infrastructure, integrating with MySQL database for data storage and management. Employed React.js to design a front-end interface, allowing users to store information on books.

Peer-to-Peer Chat Network System (C, Linux)
- Designed a p2pchat network system, where each peer socket acts as both a server and a client to communicate with all its connected peers. Each peer keeps track of its connected peers with a thread-safe designed storage.

Algorithm & Data Structure (C++)
- Maze Solver uses a stack or queue by the user's choice to find a path between two points in a text-file maze. Implemented OOP by creating a stack-point-agenda and queue-point-agenda, which inherit from the abstract class, point-agenda.
- Text Twist returns all the possible lexicons that can be formed from the 7 letters that the user inputs. The program contains a text file of valid words and uses a tree to go through all the possible combinations. Created a class for a tree node, which is an object that stores a character value, a Boolean value, and a pointer that points to an array of tree nodes.