John (Junseong) Kim

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LinkedIn | GitHub Repository | Personal Website

Skills

Programming / Framework	Tools
• C / C++	• Git / GitHub / GitLab
• Python	• Confluence
• SQL – SQLite, MySQL	• SolidWorks
• HTML5 & CSS	• MATLAB
• OpenGL	• Visual Studio / Eclipse / XCode
• TensorFlow / Keras / Tkinter	• Windows / Linux Ubuntu / MacOS
• VHDL / Assembly	• MS Suite / Google Suite

Technical Work Experience

Technology Strategy: Engineering Co-op Student **Aug 2019 – April 2020**
TELUS, Burnaby, BC

- Transformed business requirements into technical designs for maximized workflow within Confluence using Atlassian tools and add-ons in an agile project environment
- Improved usability and accessibility for engineers and technicians by transitioning existing documentation libraries from Sharepoint to Confluence
- Organized and resolved tickets and queries from users effectively as a Confluence administrator
- Outlined and created training processes for teams and users to aid the onboarding process

Junior QA **Jan – April 2018**
CTDI, Richmond, BC

- Developed a test case along with a QA senior for new equipment to identify common bugs and corresponding troubleshooting practices
- Ensured product quality met consumer-ready requirements through testing and debugging methods
- Participated in the operation and logistics throughout the product refurbishment cycle

Personal Projects

Python Database Application - Python, SQLite, Tkinter **June – Aug 2021**

- Created a python application to store data using Tkinter to design a GUI and SQLite to store the database
- Implemented a tree view to display the information and interact with the data stored in the database directly using the GUI

Portfolio Website – HTML, CSS, Javascript **May – June 2021**

- Designed a unique website hosted via GitHub to introduce myself and to demonstrate some of my projects
- Implemented animations and responsive sizing to make the website dynamic and interactive

Academic Projects

Photoacoustic Imaging Tomography (VALIS) **May – Dec 2020**
Capstone, SFU **(MATLAB, Gitlab, G-Suite)**

- Aimed to design an affordable photoacoustic imaging (PAI) system, specialized for imaging vasculature to bring to a wider market
- Integrated LEDs, amplifying circuit with filters ultrasound transducer and safety sensors to create and receive an amplified signal from the imaging subject
- Implemented a GUI in MATLAB to interact with the data collected from the transducer to create an observable B-mode image
- Carried out weekly team meetings and documented each process throughout the project using Google Docs and GitLab

Object Classification using CNN Model **Sept-Dec 2020**
Multimedia Communications, SFU **(Python, Keras/Tensorflow)**

- Investigated and reported the accuracy and efficiency of object classification in different colorspaces including YUV, RGB and HSV
- Trained the Convolutional Neural Network (CNN) with pre-existing CIFAR-10 dataset to accurately classify test images from ten different classes of objects
- Developed a convolutional neural network using Keras/Tensorflow to classify objects with images

Route Planner for Practical Ride-Sharing Applications **May – Aug 2019**
Decision Making in Engineering, SFU **(C++, Visual Studio, OpenGL)**

- Designed a program implementing Yen's algorithm in C++ to calculate variables including finding N number of shortest paths in a nodal network and make the corresponding utility maximizing decision
- Simulated a real-world application of a decision agent replicating a ride-sharing platform through OpenGL
- Investigated and recorded additional future applications and improvements to reflect more variables that can affect ride-sharing applications

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Education

Bachelor of Applied Science | Systems Engineering **Acquired in May 2021**

- Simon Fraser University | Burnaby