John (Junseong) Kim

Passionate and self-motivated in learning innovative technologies, eager to take on new challenges.

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TECHNICAL SKILLS

SOFTWARE

- C / C++
- Python
- SQL – SQLite3, MySQL
- HTML5 & CSS
- OpenGL
- TensorFlow / Keras
- VHDL / Assembly

TOOLS

- Git / GitHub / GitLab
- Confluence
- SolidWorks
- MATLAB
- Visual Studio / Eclipse / XCode
- Windows / Linux Ubuntu / MacOS
- 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 user experience and 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

PROJECT EXPERIENCE

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 meetings and documented each process throughout the project through Google Docs and GitLab

PROJECT EXPERIENCE CONTINUED

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 the Keras module within Tensorflow to classify objects with images

Tic-tac-toe with AI **June 2020**
Artificial Intelligence Survey, SFU **(Python)**

- Designed a tic-tac-toe program in Python that can simulate hundreds of moves using random playouts to choose the move with the best probability of winning
- Successfully implemented the program so that the program never loses against a human player

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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OTHER WORK EXPERIENCE

Shift Leader/Server **Jan 2016 – Aug 2019**

Sushi Oyama, Coquitlam, BC

- Gained clerical experience by managing cashing out after shifts, and keeping record of shipments of supplies from wholesale supply companies
- Anticipated and addressed customer service needs, while learning to adapt to busy and diverse situations
- Demonstrated leadership skills by training new staff members and dividing work within a team for improved work efficiency

Academy Instructor **Jan 2014 – Aug 2016**

JLS Academy, Maple Ridge, BC

- Developed strong interpersonal and communication skills by teaching English and math to a class of seven exchange students on a weekly basis
- Took initiative to create study outlines in cooperation with the academy supervisor for greater success in respective fields of study

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EDUCATION

Simon Fraser University Burnaby, BC **Acquired in April 2021**

- Faculty of Applied Science, Systems Engineering