Min Kyu **Kim**

Security · Machine Learning · Design

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Education

Maine School of Science and Math
Limestone, ME

2012 American-Regional-Math-League National Qualifier

Carnegie Mellon University
Pittsburgh, PA

B.S. Electrical & Computer Engineering

Real-Time Operating Systems, Pattern Recognition Theory, Parallel Computer Architecture

Experience

Stanford University: Freeman-Spogli Institute
Palo Alto, CA

Research Software Engineer, supervisor: Dr. Jerry Kaplan *2018.09 - 2019.01*

- Using AI to Facilitate Citizen Participation in Democratic Policy Deliberations.
- **Convolution of topic modeling**, **Sentiment/disposition Analysis**, and **Metadata clustering** in order to map comments related by subject, language, and context, given data from Federal Communications Committee using Python.
- Built an **Unsupervised Learning library with Random-walk model** to cluster language-agnostic text data to help understand automated natural languages better.

JP Morgan Chase Co.
New York, NY

Software Engineer Intern: Infrastructure/Backend *2015.06 - 2015.08*

- **Real-Time Internal Storage data analysis** & **capacity forecasting algorithm design** to avoid overloading the capacity among datacenters. Catching faulty data wins the game in machine-generated-log(MGL).
- Project focused on the visualization, localization and recognition of data leaks at each data center.

Rainbow Robotics
Daejeon, S.Korea

Software Engineer, supervised by KAIST HUBO Lab; Dr. Jun-Ho Oh *2017.06 - 2017.08*

- **Full-Stack Python Plug-In** connecting OpenCV2 to HUBO Vision system, fully modularized by memory-mapped file in the OS.
- **Footstep Detection Algorithm**: Improving HUBO's communication to its point-cloud system with forward feedback. Simulation environment was in ROS; ultimate goal was object detection by extracting and segmenting the seen planes.

Stanford University Human-Computer Interaction Lab
Palo Alto, CA

Research Intern, supervisor: Dr. James Landay *2016.06 - 2016.08*

- Developed a **driver's seat API with a matrix of electric actuators embedded for interaction research, funded by Faurecia**. We made a complete API and hardware, which was submitted to CHI.
- The project was a Joint research with **Stanford VAIL**(Volkswagen Automotive Innovation Lab) on **the driving intervention for analysis on captured motions** in a seated environment given a real-time feedback system.

Projects and Coursework

2018 **[Senior Thesis] Pattern Recognition Theory**, *Artistic Style Extraction using Dense CNN layers.*
2018 **Natural Language Processing**, Designed automated Q&A machine given a Wiki Article.
2018 **Security and Cryptography**, Control Flow Hijack, TLS/SSL Encryption Attack, BGP and DDoS
2017 **Discrete Differential Geometry**, Heat Method for Distance Computation w/ exterior calculus.
2017 **Distributed Systems**, Concurrent distributed server/client file search system with scalable proxy.
2016 **Artificial Intelligence**, Implemented vision recognition model for artistic style of paints.
2016 **Real-Time Embedded Systems**, Design and implementation of smart scheduling on RTOS.

Skills

C, Python, Java, JavaScript, C++, ASM, System Verilog, CSS, ROS