MINGUN PAK

E-mail: mingunpa@usc.edu | **Phone:** 213-999-1434
LinkedIn: linkedin.com/in/mingunpak | **Github:** github.com/kai3n

EDUCATION

M.Sc. in Computer Science, University of Southern California, Los Angeles, CA   *Aug 2018*
B.Sc. in Computer Science, Inha University, Incheon, South Korea   *Aug 2015*

TECHNICAL SKILLS

Specialty	Natural Language Processing, Computer Vision, Machine Learning, Full-stack, Back-end
Programming language	Python, Java , C++, C#, R, Swift3, Ruby, PHP, JavaScript, HTML5, CSS
Database	MySQL, PostgreSQL, MongoDB
Framework	Flask, Django, Tensorflow, Keras, PyTorch, Caffe, NLTK, Hadoop, Spark, AngularJS
Software	AWS, Heroku, Docker, Google Cloud, Github, Trello, Source Tree, Slack

WORK EXPERIENCE

Computer Vision Researcher(Intern), ObEN, Inc. – Pasadena, California   *Feb 2018 – Present*
Technical Skills List: **Python, Tensorflow, PyTorch, Computer Vision**
- Design and implement a dance generator from songs by Machine Learning Model
- Research and develop Real-time 3D Human Pose Estimation with a Single RGB Camera

NLP Engineer(Intern), DreamTek Industries - Los Angeles, California   *Sep 2017 – Dec 2017*
Technical Skills List: **Python, Natural Language Processing, NTLK, Flask, Flask-RESTPlus, MongoDB**
- Implemented back-end features to optimize financial services selection and created a true banking API
- Contributed to POS and IOB tagger using CRF, and improved F1-score 0.91 to 0.94 from the previous model.

Machine Learning Engineer(Intern), Gridspace - Los Angeles, California   *May 2017 – July 2017*
Technical Skills List: **Python, Keras, Pytorch, Natural Language Processing**
- Designed Sentiment analyzer which has 91.5% accuracy using hybrid CNN+LSTM model with bi-gram
- Developed Anomaly detector based on call log, which uses GRU+Attention model with gradient-clipping & coverage

Software Engineer(Intern), Samsung Electronics Co., Ltd. - Seoul, South Korea   *Mar 2014 – Apr 2015*
Technical Skills List: **Assembly, C, C++, Computer Architecture, System Programming**
- Designed the 64Bit Multi-Core OS prototype that increases performance by 50% of context switching speed
- Handpicked member for core development team that focused on multitasking & multithreading, device drivers, code reviews, and end-to-end integration
- Created a Bitcoin mining application on our OS and Ubuntu

Software Engineer(Intern), Ministry of Science - Seoul, South Korea   *Jul 2013 – Feb 2014*
Technical Skills List: **Ruby**, **Android, Java, Secure Coding, Compiler**
- Created the Automatic Secure Coding Verification Tool for Android Apps that detects vulnerable source code by utilizing approximately 100 rules
- Designed the Java Source Code Parser using Ruby

PROJECT EXPERIENCE

All-In-One SNS Website and iOS App   *Jan 2017 – Apr 2017*
Technical Skills: **Swift3, Javascript, PHP, jQuery, Bootstrap, AngularJS, Google Cloud, FB Graph API, Maps API**
- Developed a responsive webpage which allows us to search for our friends through all the famous SNS
- Created iOS app which exactly acts like the webpage based on Swift3

Sudoku Solver Android App   *Jan 2017 – Feb 2017*
Technical Skills: **Android, Python, Tensorflow, OpenCV, Deep Learning**
- Designed the solver that recognizes Sudoku in natural pictures like newspaper, and returns the solution on the mobile phone screen
- Improved MNIST data-set up to 99.68% accuracy by ensemble CNN model

Auto-tagging Android Gallery App   *Mar 2015 – Jun 2015*
Technical Skills: **Android, Python, Flask, MySQL, Caffe API, OpenCV, Machine Learning**
- Created the gallery app that automatically detects and tags objects within photographs
- Developed a unique algorithm using the SURF and Union-find algorithm to increase speed of image region detection.