

# MINGUN PAK

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## 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, C++, Tensorflow, PyTorch, Computer Vision, Deep Learning**

- 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, Deep Learning**

- 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.