868 S 5Th Street, Apt 429
San Jose, CA 95112

MINGUN PAK
Machine Learning & Full-stack Engineer

(213)999-1434
jpak1021@gmail.com
linkedin.com/in/mingunpak

TECHNICAL SKILLS

Expertise	Machine Learning, NLP, Computer Vision, Data Science, Full-stack
Programming language	Python, Java , Scala, JavaScript ,C++, R, Swift3, PHP
Database	MySQL, PostgreSQL, MongoDB
Others	Tensorflow, Keras, PyTorch, Caffe, Spark, Hadoop, Flask, Django, NLTK, ReactJS, Selenium, Docker, K8s, AWS, Heroku, Google Cloud

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*

WORK EXPERIENCE

Data Scientist, IBM - San Jose, California *Sep 2018 – Present*
IBM Watson Machine Learning
- Designs an anomaly detector to predict issues on DB2 before they arise by using machine learning model
- Implements capacity planning calculator for machine learning in z/OS
- Leads JPMorgan Chase customer churn detection project based on 13M business banking customers
- Improved the existing keyword extraction model by 20% by various NLP technics

Computer Vision Researcher(Intern), ObEN - Pasadena, California *Feb 2018 – Sep 2018*
Research Area: 3D human pose estimation, depth estimation, GANs
- Designed and implemented a dance generator from songs by machine learning model
- Researched 3D human pose estimation and 3D full body reconstruction based on deep learning model
- Reduced errors by 12% at 3D human pose estimation task as compared to the current state-of-the-art model

Machine Learning Engineer(Intern), DreamTek Industries - Los Angeles, California *Sep 2017 – Dec 2017*
- Implemented back-end features to optimize financial services selection and created a true banking API
- Developed a POS tagger and NER model using CRF and achieved 5% higher F1-score, compared to the model using HMM

Machine Learning Engineer(Intern), Gridspace - Los Angeles, California *May 2017 – July 2017*
Github: github.com/kai3n/sentiment-analysis-imdb, github.com/kai3n/anomaly-detector
- Designed sentiment analyzer: achieved 91.5% accuracy on IMDb dataset, using hybrid CNN+LSTM model with bi-gram
- Developed anomaly detector for telephone call log, using GRU+Attention model with gradient-clipping & coverage

Software Engineer(Intern), Samsung Electronics - Seoul, South Korea *Mar 2014 – Apr 2015*
- 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 both 64Bit Multi-Core OS prototype and Ubuntu

Software Engineer(Intern), Ministry of Science and ICT - Seoul, South Korea *Jul 2013 – Feb 2014*
Github: github.com/kai3n/Orroid
Publication: Pak, M. An Analysis on Techniques for Preventing Android Reverse Engineering, KIPS 2014, Seoul, South Korea
- Created an automatic secure coding verification tool for Android apps that detects vulnerable source code
- Designed a Java source code parser using Ruby

AWARDS

1st place, CODEchella, Los Angeles, CA *Apr 2017*
2nd place, Programming Contest, Inha University, South Korea *Sep 2014*
2nd place, White Hat Hacking Contest, Samsung Electronics, South Korea *Jun 2014*
1st place, Academy Hackathon , Inha University, South Korea *Dec 2013*
2nd place, H.U.S.T hacking Festival, Hongik University, South Korea *Dec 2012*