# HyeongChan Kim

https://github.com/kozistr, http://kozistr.tech/about

**EDUCATION**

**Korea University of Technology and Education (KOREATECH)** Mar 2016 –

**CHALLENGES & AWARDS**

6th place, **NAVER NLP Challenge**, SRL Task, 2018

4th / 13th place, **NAVER A.I Hackathon**, 2018

Final Round (Digital Forensic), **A.I R&D Challenge**, 2018.

2nd place (Demon), **Boot2Root** CTF, 2018

2nd place (Demon), **WhiteHat League 1**, 2017

3nd place (SeoulWesterns), **Harekaze CTF**, 2017

9th place (3rd price, A book as award), **TF-KR MNIST Challenge**, 2017

**Kaggle Challenges :: Competition Expert**

LB Top 4% Tweet Sentiment Extraction (84 / 2227), 2020.

LB Top 4% Flower Classification with TPUs (27 / 848), 2020.

LB Top 4% Bengali.AI Handwritten Grapheme Classification (67 / 2059), 2020.

LB Top 3%, Kannada MNIST Challenge (28 / 1214), 2019.

**CTFs & Conferences**

Conference Staff**, POC,** 2016

Staff, Challenge Maker, **HackingCamp 15**, 2017

Staff, Challenge Maker, **CodeGate OpenCTF**, 2017

Staff, Challenge Maker, **HackingCamp 16**, 2017

Challenge Maker, **POX CTF**, 2017

Challenge Maker, **KID CTF**, 2017

Staff, **Belluminar CTF**, 2017

Staff, Challenge Maker, **HackingCamp 17**, 2018

**PUBLICATIONS**

[2] Kim et al, CNN ARCHITECTURE PREDICTING MOVIE RATING FROM AUDIENCE'S REVIEWS WRITTEN IN KOREAN. Jan. 2020.

[1] zer0day, Windows Anti-Debugging Techniques (CodeEngn Archive) Sep. 2016.

**INDUSTRY EXPERIENCE**

**Rainist,** Seoul, South Korea Nov 2019 – Jun 2020

Machine Learning Engineer

- Developed the card & bank account transaction category classification models, designed light weight purpose for the low latency. (now on service)
  - In A/B test result, improved about 25 ~ 30% accuracy.
- Developed the machine learning model serving RESTful API server (utilizing k8s + open source project).
  - zero failure rate (zero 40x 50x error)
- Worked as a full-time.

**VoyagerX,** Seoul, South Korea Jan 2019 – Sep 2019
Machine Learning Engineer

- Developed speaker verification, diarization models & logic for recognizing the arbitrary speakers recorded from the noisy (real-world) environment.
- Developed a hair image semantic segmentation / image in-paint / i2i domain transfer model for swapping hair domain naturally.
- Worked as an intern.

**ELCID,** Pangyo, Korea Jun 2016 - Aug 2016
Penetration Test

- Penetrated some products related to network firewall and anti-virus.
- Worked as a part-time job.

**OUT SOURCING**

**Korea University Course Information Web Parsing,** ITL July 2017 – Mar 2018
**AWS CloudTrail logger analyzer / formatter**, ELCID Sep 2019 – Oct 2019

## RESEARCH EXPERIENCE

**Heterogeneous Parallel Computing Lab**, Cheonan, Korea Sep 2018 - Dec 2018
Undergraduate Research

- Wrote a paper about improved TextCNN model for predicting movie rate.

## TALKS

**NAVER NLP Workshop 2018,** Pangyo, Korea Dec 2018

- SRL Task, challenging without any domain knowledge

## PROJECTS

**Generative** **Awesome Generative Adversarial Networks (Stars 480+)** July 2017 –
Implemented lots of Generative Adversarial Networks in tensorflow 1.x. Novelties of this project are trying to implement lots of GANs which some of them are not released or in tensorflow 1.x based on the paper with some tweaks.

| | | |
|---|---|---|
| | **gan-metrics (Stars 2+)** | Mar 2020 – |
| | Implemented lots of metrics for evaluating GAN in pytorch. | |
| **I2I Translation** | **Improved Content Disentanglement (Stars 3+)** | Sep 2019 |
| | Re-implement / tune 'Content Disentanglement' paper in pytorch. | |
| **Image Inpainting** | **Improved Edge-Connect (Stars 4+)** | Oct 2019 |
| | Re-implement / tune 'Edge-Connect' paper in pytorch. | |
| **Style Transfer** | **Neural Image Style Transfer** | Mar 2018 |
| | Implemented a neural image style transfer. | |
| **Segmentation** | **Awesome Segmentation (Stars 60+)** | Aug 2018 |
| | Implemented lots of image semantic segmentation and ordered the papers. | |
| **Optimizer** | **AdaBound Optimizer (Stars 40+)** | Jan 2019 |
| | Implemented AdaBound Optimizer (Luo et al. 2019) w/ some tweaks in tensorflow. | |
| | **RAdam Optimizer (Stars 4+)** | Sep 2019 |
| | Implemented RAdam Optimizer (Liu et al. 2019) w/ some tweaks in tensorflow. | |
| **Super Resolution** | **Deep Residual Channel Attention Network (Stars 36+)** | Sep 2018 |
| | Implemented a RCAN model in tensorflow. | |
| | **Enhanced Super Resolution GAN (Stars 24+)** | Jun 2019 |
| | Implemented an ESRGAN model in tensorflow. | |
| | **Natural and Realistic SISR w/ Explicit NMD (Stars 5+)** | Apr 2020 |
| | Implemented a NatSR model in pytorch. | |
| **NLP** | **Improved TextCNN (Stars 4+)** | Dec 2018 |
| | Implemented an improved TextCNN model (Kim et al. 2019) | |
| | **Text Tagging** | Dec 2018 |
| | Implemented a text category classifier in tensorflow | |

**R.L**

**Rosseta Stone (Stars 420+)** Sep 2018-

Hearthstone simulator using C++ w/ some R.L.

I contributed to this project by implementing `feature extractor` and `neural network' in libtorch++.

**Speech Synthesis**

**Tacotron** Jan 2019

Implemented a google tacotron speech synthesis in tensorflow.

**Open Source Contributions**

**syzkaller** Apr 2018

New Generation of Linux Kernel Fuzzer :: Minor contribution #575

**simpletransformers** Apr 2020

Transformers made simple w/ training, evaluating and prediction possible w/ one line each :: Minor contribution #290