Young Hyun Yoo
Software Engineer

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SUMMARY

An all-around player with extensive experience in various fields. Expert in web server back-end development, particularly in the billing domain, but also proficient as a web front-end developer using React with JSX or TypeScript. Have a full-time master's degree in natural language processing, fully funded with preferential treatment from Samsung Electronics. Previously developed bootloader and device driver as a system engineer in the BSP team.

PROGRAMMING SKILLS

- **Languages**: Java, SQL, Shell script, Terraform HCL, Javascript (+ JSX, Typescript), HTML/CSS, Python, C/C++

- **Tools**: Spring (MVC, WebFlux, JPA, Security), AWS (+ ECS, EKS), SoapUI, MySQL, React, PyTorch, HuggingFace, GGML

- **Others**: RESTful API, HTTP, TLS, Oauth 2.0, OOP/OOAD/DDD, Clean coding, TDD, Agile development (XP & Scrum), PCI-DSS (+ 3DS2), Device driver, Jira/Confluence, Git/SVN

EXPERIENCE

Task Oriented Dialog Research — Samsung Electronics Co., Ltd. Suwon, Korea
Staff Engineer *Mar 2024 – Present*

- On-device Virtual Assistant

Sentence Representation Learning Research — Hanyang University Seoul, Korea
Researcher *June 2022 – Feb 2024*

- Analyze and develop efficient methodologies for learning high-quality sentence representations based on large-scale language models
    - Published *Hyper-CL: Conditioning Sentence Representations with Hypernetworks*
    - Published *Comparison and Analysis of Unsupervised Contrastive Learning Approaches for Korean Sentence Representations*

Billing development — Samsung Electronics Co., Ltd. Suwon, Korea
Engineer *Nov 2016 – March 2022*

- Led CP portal redevelopment: Used React, Spring MVC, Spring Boot, JPA (2020 – 2022)
- Developed DSA agreement (2021)
- Developed subscription product change for active subscription (2021)
- Implemented 3DS2 respond to EU PSD2 law regulations (2020)
- Developed remote login to Samsung Smart TV using smartphone (2020)
- Developed integration test framework: Used SoapUI, Groovy (2019)
- Migrate buyer portal from monolithic to MSA: Used AWS ECS, Terraform HCL (2019)
- Rearchitect Billing service for PCI-DSS (2018)
- Led buyer portal redevelopment: Used React, Spring Boot, JPA (2018)

BSP development — Samsung Electronics Co., Ltd. Suwon, Korea
Engineer *Feb 2015 – Nov 2016*

- Port ramdump feature to Samsung Smart TV Kernel (2016)
    - Contributed to kexec-tools utility (https://bit.ly/3yG44df)

Samsung Software Membership Suwon, Korea
Undergraduate *Feb 2013 – Feb 2015*

- Modify Android Kernel to operate smartphone as webcam, speaker, microphone
    - Accepted as the best project of the year (http://bit.ly/358b7O8)

EDUCATION

- **Hanyang University**   Seoul, Korea
  Master of Science in Computer Science; GPA: 4.06/4.5   *Mar 2022 – Feb 2024*

- **Hongik University**   Seoul, Korea
  Bachelor of Science in Computer Engineering; GPA: 3.5/4.5   *Mar 2008 – Feb 2015*

PUBLICATIONS

- **Young Hyun Yoo**, Jii Cha, Changhyeon Kim and Taeuk Kim, Hyper-CL: Conditioning Sentence Representations with Hypernetworks, *The 62nd Annual Meeting of the Association for Computational Linguistics* (**ACL 2024**).

- **Young Hyun Yoo**, Kyumin Lee, Minjin Jeon, Jii Cha, Kangsan Kim, and Taeuk Kim, Comparison and Analysis of Unsupervised Contrastive Learning Approaches for Korean Sentence Representations, *The 34th Annual Conference on Human and Cognitive Language Technology* (**HCLT 2022**).

ADDITIONAL INFORMATION

- **Languages**
  - English: Proficient, Korean: Native