Young Hyun Yoo
Software Engineer

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SUMMARY

An adaptable professional with extensive experience across multiple domains. Expert in back-end web server development, particularly in billing systems, and proficient in front-end development with React (JSX, TypeScript). Completed a Master's degree in Natural Language Processing (funded by Samsung Electronics) and has a paper accepted at ACL 2024. Previously developed bootloaders and device drivers as a system engineer in the BSP team.

PROGRAMMING SKILLS

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

- **Tools**: Spring (MVC, WebFlux, JPA, Security), AWS (ECS, EKS), Docker, MySQL, React, PyTorch, HuggingFace, LangChain/LangGraph, SoapUI

- **Others**: RESTful API, HTTP/TLS, OOP/OOAD/DDD, TDD, Clean coding, Scrum, PCI–DSS, Git/SVN

EXPERIENCE

- **Automatic Content Recognition — Samsung Electronics Co., Ltd.** — Suwon, Korea
  Staff Engineer — *Dec 2024 – Present*
  - Developed real-time automatic matching system between content and TV Ads

- **Agentic AI Chatbot — Samsung Electronics Co., Ltd.** — Suwon, Korea
  Staff Engineer — *Mar 2024 – Nov 2024*
  - Developed On-device Virtual Assistant using AWS bedrock, LangChain/LangGraph

- **Sentence Representation Learning Research — Hanyang University** — Seoul, Korea
  Researcher — *Jun 2022 – Feb 2024*
  - Analyzed and developed 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 – Mar 2022*
  - Led CP portal redevelopment using React, Spring MVC, Spring Boot, and JPA (2020-2022)
  - Developed DSA agreement feature (2021)
  - Developed a subscription product change feature for active subscriptions (2021)
  - Implemented 3DS2 compliance for EU PSD2 regulations (2020)
  - Developed remote login to Samsung Smart TV using a smartphone (2020)
  - Developed an integration test framework using SoapUI and Groovy (2019)
  - Migrated buyer portal from monolithic architecture to MSA using AWS ECS and Terraform HCL (2019)
  - Re-architected the Billing service for PCI-DSS (2018)
  - Led buyer portal redevelopment using React, Spring Boot, and JPA (2018)

- **BSP Development — Samsung Electronics Co., Ltd.** — Suwon, Korea
  Engineer — *Feb 2015 – Nov 2016*
  - Ported the ramdump feature to the Samsung Smart TV kernel (2016)

- **Samsung Software Membership** — Suwon, Korea
  Undergraduate — *Feb 2013 – Feb 2015*
  - Modified the Android kernel to operate a smartphone as a webcam, speaker, and microphone
    - Selected 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

- **Achievements**
  - Selected as a core talent by Samsung Core Talent Management (2022-present)

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