CHANGMIN JEON

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Seoul, Republic of Korea
Last updated: 1/20/2024

RESEARCH INTERESTS

- On-Device AI Systems
- Scene Understanding for XR Applications
- Synthetic Data Generation

EDUCATION

Seoul National University *Mar 2020 - Present*
Ph.D. Student in Computer Science and Engineering *(Advisor: Youngki Lee)* *Seoul, Republic of Korea*

Seoul National University *Mar 2014 - Feb 2020*
B.S. in Computer Science and Engineering *Seoul, Republic of Korea*

Seoul National University *Mar 2014 - Feb 2020*
B.S. in Mechanical Engineering *Seoul, Republic of Korea*

PUBLICATIONS

Mondrian: On-Device High-Performance Video Analytics with Compressive Packed Inference *Reviewing*
Changmin Jeon, Seonjun Kim, Juheon Yi and Youngki Lee
Under Review, IEEE Transactions on Mobile Computing (TMC)

Band: Coordinated Multi-DNN Inference on Heterogeneous Mobile Processors *Jun 2022*
Joo Seong Jeong*, Jingyu Lee*, Donghyun Kim, **Changmin Jeon**, Changjin Jeong, Youngki Lee and Byung-Gon Chun
(* Both authors contributed equally to the paper)
Proceedings of the 20th Annual International Conference on Mobile Systems, Applications and Services (MobiSys '22)

ON-GOING PROJECTS

ODLIA: Optimization - Deep Learning Integrated Acceleration for Real-time XR Systems *Aug 2023 - Present*
Changmin Jeon, Dongho Han and Youngki Lee

Existing deep learning acceleration techniques are not enough to enable highly fast (<10ms) scene understanding, such as hand-object tracking and semantic mapping. We enable a swift scene understanding system by modeling the pipeline into optimization - deep learning co-execution and jointly accelerating them.

OTHER PROJECTS

FallSim: Accurate Fall Detection with Synthesized Fall Motions *Mar 2023 - Present*
Hyunwoo Jung, Jungnam Park, Taeho Kang, **Changmin Jeon** and Youngki Lee

VSense: Enabling Activity Recognition with Virtual Reality *Mar 2019 - Mar 2020*
Hyunwoo Jung*, **Changmin Jeon***, Inseok Hwang and Youngki Lee

SKILLS

Programming Languages
C++, Python, Java, C, Rust, Kotlin

Familiar Softwares
Mobile Deep Learning Frameworks (e.g., TFLite, MNN)
TensorFlow, PyTorch, OpenCV, Android SDK, Unity

WORK EXPERIENCE

EQUALKEY *Dec 2018 - Feb 2019*
Software development intern *Republic of Korea*
Knowledge Graph Generation, Educational Game Development

Republic of Korea Army *May 2016 - Feb 2018*
Military Service *Republic of Korea*

ACADEMIC SERVICES

IMWUT 2022 (May 2022 round) *External Reviewer*

INVITED TALKS

Mondrian: Edge-Enabled High-Performance Video Analytics with Compressive Packed Inference
A3 Foresight Workshop: International Joint Workshop on Intelligent IoT Key Technology 2023 *Sep 2023*

HONORS & AWARD

Best Teaching Assistant *Mar 2023*
SNU & Samsung Data Science Course: Machine Learning (1st among 44 TAs)

GRANTS

National Science & Technology Scholarship ($20000) *Mar 2014 - Feb 2020*

TEACHING ASSISTANT

SNU & LG Data Science Course: Machine Learning
Jan 2024 / Jan 2023 / Jan 2022 / Jan 2021 / Feb 2020
Machine learning theory and practice with *An Introduction to Statistical Learning*

SNU & Samsung Data Science Course: Machine Learning
Jul 2023 / Mar 2023 / Mar 2022 / Aug 2021 / Feb 2021 / Aug 2020 / Feb 2020
Machine learning theory and practice with *An Introduction to Statistical Learning*

SNU & Samsung Data Science Course: Machine Learning Projects *Oct 2023 / Jun 2023*
Machine learning projects with *Kaggle*

SNU & SK Hynix ML Engineer Course: Time Series Data Analysis *Aug 2022 / Nov 2022*
Linear & non-linear models, hidden markov model, filtering methods, and deep learning models

SNU Big Data & Fintech Expert Training Course: Fintech Industry Application *Apr 2021*
Mobile deep learning & machine learning application development

SNU Computer Programming (M1522.000600) *Fall 2020*
Object oriented programming in java & C++

SNU Mobile and Ubiquitous Computing (M1522.003300) *Spring 2020*
Activity recognition, localization, health care, power optimization, cloud and edge systems