

**SOFTWARE RESEARCH
ENGINEER/SCIENTIST
AT INTEL**

SKILLS

PROGRAMMING

Python / C++ / MATLAB

DATA ANALYSIS

Machine Learning techs,

Data processing

STATUS

Green Card Holder

EDUCATION

Ph.D./B.Sc in Physics

Seoul National University,

Seoul, South Korea

Min-Cheol Lee

Experienced **software engineer** specializing in semiconductor photomask models and photolithograph process. Proven expertise in Optical Proximity Correction (OPC) models and yield/performance improvements in leading-edge technology nodes. Excited to leverage my expertise to drive innovation at Intel.

Ph.D. in Condensed Matter Physics with expertise in ultrafast phenomena of quantum materials, specializing in big data analysis from synchrotron experiments.

WORK EXPERIENCE

SOFTWARE RESEARCH ENGINEER / SCIENTIST

Intel Corporation, OR, USA

2022 – present

RET Layer Owner (2023 – present)

- Acting as a layer owner across multiple layers for Intel's 18A/14A nodes.
- Integrating new lithography/etch processes and developing/tuning Optical Proximity Correction (OPC) models.
- Validating and resolving yield and performance issues, contributing to improvements in process yield.

Test Plate Designer (2022 – 2023)

- Developed scripts for designing test plates, enhancing Intel's 18A/14A nodes.
- Automated design workflows, improving the efficiency and quality of test plates.

POSTDOCTORAL RESEARCHER

Los Alamos National Laboratory, NM, USA

2019 – 2022

- Constructed experiments of ultrafast infrared/X-ray spectroscopy at synchrotrons.
- Investigated non-equilibrium dynamics of optical properties and crystal structures in superconducting and topological materials

PUBLICATIONS

- 26 academic publications | first author in 8 | cited over 500 times
- 1 Nature Materials, 4 Physical Review Letters, 1 Advance Materials, 9 Phys. Rev. B

REFERENCES

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