

Sangin Kim (Timothy)

Curriculum Vitae

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Educations

- Virginia Tech, Blacksburg, VA Aug 2025 – Present
- PhD Student, Mechanical Engineering
 - Advisor: [Prof. Michael Bartlett](#)
- Yonsei University, Seoul, KR Aug 2022 – Feb 2025
- Master of Science, Electrical Engineering
 - GPA: 3.68/4.3
 - Advisor: [Prof. Jungmok Seo](#)
- Chung-Ang University (CAU), Seoul, KR Feb 2017 – Feb 2022
- Bachelor of Science, Electrical Electronics Engineering
 - GPA: 3.62/4.5

Research and Industry Experience

- Research Assistant Dec 2022 – Feb 2023
Functional & Molecular Imaging System Lab at Seoul National University College of Medicine, Seoul, KR
- Positron Emission Tomography (PET)
 - Designed analog front-end circuit of sensor technology in the Positron Emission Tomography (PET) detector for diagnosing cancer.
 - Measured and optimized the efficiency of the Silicon Photomultiplier (SiPM).
- Research Internship Jan 2021 – Feb 2021
Power Master Semiconductor Company (PMS Co.), Gyeonggi-do, KR
- Power semiconductor
 - Analyzed and revised the design of the Power Management Integrated Circuits.
 - Performed testing and simulation on newly designed and manufactured SiC power semiconductors.

Publications

First Author*; 2 papers, **Co-author**; 3 papers

- [1]. **S. Kim***, et al., “Bio-inspired Modulus Graded Substrate for Soft Electronics”, in preparation
- [2]. **O. Hur***, **S. Kim***, et al., “Stretchable Liquid Metal Soft Circuit with VIA Structure”, in preparation
- [3]. **S. Kim**, et al., “Highly Adhesive Liquid Metal Paste for Stretchable Electronics”, in preparation.
- [4]. S. Kim*, **S. Kim**, et al., “Sintering-free Liquid Metal Ink for Stretchable Printed Electronics”, in preparation.
- [5]. T. Kim*, S. An, Y. Kim, S. Han, J. Lee, K. Park, **S. Kim**, J. Park, S. Kim, J. Chung, S. Cho, J. Seo, “Lubricant-Infused Polymeric Interfaces: A Stretchable and Anti-Fouling Surface for Implantable Biomaterials”, *Adv. Funct. Mater.* 2024, 34, 2312740.

Conferences

- [1]. **S. Kim***, et al., “Development of Scalable Biphasic Liquid Metal Stamp for Stretchable Electronics”. Abstract and Poster at **IEEE Nanomed Conference 2023**, Okinawa, JP (**Selected as Best Poster Competition**).

Awards

Academic Research Fellowship, Yonsei University

Aug 2023

- Award given to a graduate student who has derived outstanding research to lead the future, awarded by the President of Yonsei University.

Teaching Experience

Yonsei University, Seoul, KR

Fall 2023

Teaching Assistant, “Fundamentals of Semiconductors” & “Capstone Design”

- Prepared “Fundamentals of Semiconductors” lectures, helped students with term papers, and graded homework.
- Provided support to students in “Capstone Design” courses in the field of bioelectronics.

Private Educational Institute, Seoul, KR

2018 – 2020

Mathematics Teacher

- Educated high school students in Seoul, Korea, including all aspects of classroom management, lesson planning, instructional delivery, and academic support.
- Topics included Algebra I & II, Functions & Calculus, Geometry, Probability & Statistics & Discrete Mathematics.

Leadership

CAU Band “Muse” club, Seoul KR

2018 – 2021

VP of Community Relations, Treasurer

- Organized and facilitated various club events and hosted band performances.

Relevant Skills

- Hardware Design: LT spice, Pspice, and Altium design.
- Computer: Microsoft Word, Excel, PowerPoint, MATLAB, and basic C++.
- Graphic design: Photoshop, Illustrator, Lightroom and Premier Pro.

References

Prof. Jungmok Seo

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Electrical Engineering

Yonsei University

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Prof. Seongjun park

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