

# Sangin Kim (Timothy)

Curriculum Vitae

[sangin@vt.edu](mailto:sangin@vt.edu) | [Homepage](#) | [Google Scholar](#)

## Educations

---

Virginia Tech, Blacksburg, VA	Aug 2025 – Present
<ul style="list-style-type: none"><li>• PhD Student, Mechanical Engineering</li><li>• Advisor: <a href="#">Prof. Michael Bartlett</a></li></ul>	
Yonsei University, Seoul, KR	Aug 2022 – Feb 2025
<ul style="list-style-type: none"><li>• Master of Science, Electrical Engineering</li><li>• GPA: 3.68/4.3</li><li>• Advisor: <a href="#">Prof. Jungmok Seo</a></li></ul>	
Chung-Ang University (CAU), Seoul, KR	Feb 2017 – Feb 2022
<ul style="list-style-type: none"><li>• Bachelor of Science, Electrical Electronics Engineering</li><li>• GPA: 3.62/4.5</li></ul>	

## Research and Industry Experience

---

Research Assistant	Dec 2022 – Feb 2023
Functional & Molecular Imaging System Lab at Seoul National University College of Medicine, Seoul, KR	
<ul style="list-style-type: none"><li>• Positron Emission Tomography (PET)<ul style="list-style-type: none"><li>- Designed analog front-end circuit of sensor technology in the Positron Emission Tomography (PET) detector for diagnosing cancer.</li><li>- Measured and optimized the efficiency of the Silicon Photomultiplier (SiPM).</li></ul></li></ul>	
Research Internship	Jan 2021 – Feb 2021
Power Master Semiconductor Company (PMS Co.), Gyeonggi-do, KR	
<ul style="list-style-type: none"><li>• Power semiconductor<ul style="list-style-type: none"><li>- Analyzed and revised the design of the Power Management Integrated Circuits.</li><li>- Performed testing and simulation on newly designed and manufactured SiC power semiconductors.</li></ul></li></ul>	

## 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

Professor

Department of  
Electrical Engineering  
Yonsei University

Research Advisor

[jungmok@yonsei.ac.kr](mailto:jungmok@yonsei.ac.kr)  
+82-2-2123-7803

### Prof. Seongjun park

Professor

Department of Biomedical  
Sciences  
Seoul National University

Research Advisor

[seongjunpark@snu.ac.kr](mailto:seongjunpark@snu.ac.kr)  
+82-10-2587-8971

### Jae-Gil Lee

CTO

R&D Team

Power Master Semiconductor  
Executive  
[jaegil.lee@powermastersemi.com](mailto:jaegil.lee@powermastersemi.com)  
+82-10-4508-2324