

Soohwan Kim — Future CFD Leader

Fluid Simulation & Biophysics Researcher at Georgia Tech

📞 +1-770-681-7572 ✉ ksh35000@gmail.com 🌐 sites.gatech.edu/skim
📍 Atlanta, Georgia 🔗 www.linkedin.com/in/soohwan-kim-31537a193

Working Experiences

SIMULIA R&D Quality Engineer <i>Tested heat transfer and fluid simulations and incorporated into regression suites</i> <i>Tested parallel I/O and GPU acceleration for HPC environments</i>	Dassault Systèmes 2025
Multiphase Applied CFD Engineer <i>Validated LBM-based phase-field multiphase flow solver</i> <i>Published a journal paper based on internship achievements</i>	Dassault Systèmes 2023
President <i>Led Korean community of approximately 400 graduate students</i> <i>Managed the official website and hosting networking events</i>	GT Korean Student Association 2021–Present
Graduate Research Assistant <i>Researched aerosol collection and pathogen detection by wet cyclone</i>	Georgia Institute of Technology 2021
Graduate Teaching Assistant <i>Taught fundamentals of fluid mechanics</i>	Georgia Institute of Technology 2022
Home Appliance Engineer <i>Designed wall-mounted air purifier combined with mask sterilizer</i>	Samsung Electronics 2021
Environmental Plant Engineer <i>Researched turbo blowers for water treatment plant</i>	Samsung Engineering 2020
Undergraduate Teaching Assistant <i>Teaching fundamentals of dynamics and robotics</i>	Seoul National University 2020
Translator & Squad Leader <i>Translated classified military intelligence, developed an RPA to translate Korean into English, led a squad comprised of 19 underclass soldiers</i>	Republic of Korea Army 2018–2019

Education

Georgia Institute of Technology <i>Doctor of Science in Mechanical Engineering (GPA: 4.0/4.0)</i> focus: CFD and biological fluid mechanics	United States 2021–Present
Georgia Institute of Technology <i>Master of Science in Computational Science and Engineering (GPA: 4.0/4.0)</i> focus: machine learning and data analytics	United States 2024–Present
Seoul National University <i>Bachelor of Science in Mechanical Engineering (GPA: 3.9/4.3, Summa Cum Laude)</i>	Republic of Korea 2015–2021

Journal Publications

Physics of Pressure-Driven Eversion by Bloodworm

Bioinspiration & Biomimetics (in prep.)

Optimization of Wetted Wall Cyclone for Pathogen Collection

Sensors and Actuators B: Chemical (in prep.)

Capillary Flow Simulation with the Phase-field-based Lattice Boltzmann Solver

Physics of Fluids, 2025

Flotation of California Blackworms and Other Hyponeuston

Interface Focus, 2025

Enhanced Wet Grip with North American River Otter Paws

Annals of the New York Academy of Sciences, 2024

Canine-inspired Unidirectional Flows for Improving Memory Effects in Machine Olfaction

Integrative and Comparative Biology, 2023

Onggi's Permeability to Carbon Dioxide Accelerates Kimchi Fermentation

Royal Society Interface, 2023

Awards & Fellowships

Departmental Topping Fellowship of Best Graduate Mentor

2024

George W. Woodruff School of Mechanical Engineering

Best Mentor Award

2024

Nakatani Foundation of Research and International Researches for Students

KSEA-KUSCO Graduate Scholarship

2023

Korean-american Scientists and Engineers Association

Next-Generation Science and Technology Leader Net

2023

Korean Federation of Science and Technology Societies (KOFST)

Special Prize in Field Problem Solving

2020

SNU X-corps Research Group

Certificate of Appreciation from Director-level US Delegations

2019

National Geospatial-Intelligence Agency

Presidential Science Scholarship

2015–2020

Korea Student Aid Foundation

KSA Scholarship

2012–2014

Korea Science Academy of KAIST

Professional Skills

COMSOL, OpenFoam, Ansys Fluent, HyperWorks, PowerFLOW, 3DEXPERIENCE FMK, ParaView
Solidworks, Siemens NX, FDM/SLA Printing, Arduino, Ansys ICEM, HyperMesh, ABAQUS

C++, Python, Julia, MATLAB

Pytorch (coupled with OpenFOAM), OpenCL and GPU computing

Post-processing of computational results: visualizations and parametric studies

Hands-on experience in prototyping and experimental testing

Key soft skills: accessibility, proactivity, and adaptability