SangMok Han

Laboratory for Simulation and Modeling Paul Scherrer Institute

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EDUCATION

M.S. in Mechanical Engineering 2023 - Present ETH Zurich Zurich, Switzerland **B.S.** in Mechanical Engineering 2018 - 2022University of Melbourne Melbourne, Australia **EXPERIENCE** Master's Thesis Sep 2024 – Present Villigen, Switzerland Paul Scherrer Institute · Title: Large eddy simulation of flow and dispersion in simple urban geometries

Semester Project Feb - May 2024 ETH Zurich Zurich, Switzerland

· Title: Smooth and adaptive density estimation

· Advisor: Daniel W. Meyer

· Advisor: Abdelouahab Dehbi

Research Intern Jul – Aug 2023 Yonsei University Seoul, South Korea

· Project: Numerical analysis of lid-driven cavity flow

· Turbulence Lab, Department of Computational Science and Engineering

Research Intern Apr – Jun 2023 Daejeon, South Korea

Korea Advanced Institute of Science and Technology

· Project: Embedded 3D printing of liquid metal within viscoplastic matrices · Fluid & Interface Laboratory, Department of Mechanical Engineering

Vacation Student Nov 2022 – Apr 2023

Commonwealth Scientific and Industrial Research Organisation (CSIRO)

Melbourne, Australia

- · Projects: CFD modeling of slag flow on a spinning disk, Modeling supersonic airflow in a Laval nozzle
- · Advisors: Peter Witt, Yuqing Feng

Research Intern Jun - Jul 2022 University of Sydney Sydney, Australia

· Project: Numerical simulation of intranasal drug delivery

· Advisor: Agisilaos Kourmatzis

Sergeant Jan 2019 – Aug 2020 Republic of Korea Army Jindo, South Korea

RESEARCH INTERESTS

Wall-Bounded Turbulent Flows, Multiphase Flows, Bluff Body Aerodynamics, Large Eddy Simulation, Direct Numerical Simulation.

TEACHING

Teaching Assistant:

· Computational Multiphase Thermal Fluid Dynamics (151-0170-00L) | ETH Zurich Spring 2025

· Mass Transfer (151-0917-00L) | ETH Zurich

Autumn 2024

SKILLS & ACCOMPLISHMENTS

Languages:

· Korean: Native

· English: Bilingual proficiency

· Chinese: Limited professional proficiency

Honors & Awards:

· Summer Research Scholarship Yonsei University	2023
· Undergraduate Vacation Studentship CSIRO	2022 - 2023
· Engineering and IT Foundation Graduate Scholarship (Declined) University of Melbourne	2022
· Engineering Vacation Research Internship Program Scholarship University of Sydney	2022
· Student Grant University of Melbourne	2022
· Leaders in Communities Award University of Melbourne	2022
· Melbourne International Undergraduate Scholarship University of Melbourne	2022

VOLUNTEER EXPERIENCE

Student Ambassador Faculty of Science, University of Melbourne	2022
Peer Mentor Faculty of Science, University of Melbourne	2021
Korean-English Translator International Agriculture Exhibition, South Korea	2019
Student Volunteer University of Melbourne Chapter, Engineers Without Borders Australia	2018

Last compiled: Feb 2025