

Si Hyun Choi

Blacksburg, Virginia

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Summary

A motivated mechanical engineering student with valuable internship experience in automotive electronics and heat exchanger design, including performance testing and system development. Skilled in utilizing industry-standard tools like MATLAB and Siemens NX to contribute to cutting-edge engineering projects. Eager to apply hands-on expertise and cross-functional collaboration skills to support innovative mechanical system design at leading companies in the industry

Education

Virginia Tech, Blacksburg
BS Mechanical Engineering
•GPA: 3.41

2022 – 2026(exp)

Achievements: Dean's List (2022 Fall, 2023 Spring, 2024 Spring)

Skills/Interests, Course Work

- Siemens NX, MATLAB, Microsoft Excel, Mechanical Engineering, Product Testing, Microsoft Project, Budget Management
- Thermodynamics, Fluid dynamics, Mechanical Vibration, Mechanical Design, Controls Engineering, Heat & Mass Transfer

Experiences

CAHO Korea

May 2025 - Aug 2025

Intern

Korea

- Participated in the development of an aluminum radiator to replace the existing copper radiator used in military trucks for the Ministry of National Defense.
- Contributed to the full product development cycle in collaboration with senior engineers, including design, manufacturing, assembly, and performance testing.
- Focused on optimizing fin geometry, tank size, and overall heat exchanger configuration to match the thermal and dimensional specifications of the original copper unit.

Future Automotive Intelligent Electronics Core Technology Center

Jun 2024 - Jul 2024

Intern

Korea

- Conducted automotive electronics BSR (Buzz, Squeak, and Rattle) and endurance reliability assessments and analyses in a semi-anechoic chamber.
- Performed comprehensive testing on engine performance, exhaust gas measurement, and drive motor, inverter, and battery system performance and durability using a motor dynamometer.
- Focused on optimizing the performance and durability of key components including the front console, power seats, and motor coolers.
- Developed an automated power seat adjustment system and programmed an ABB robot to perform the required tasks.

Modine Onegene Inc.

May 2023 - Aug 2023

Intern

Korea

- Actively contributed to the Assembly and Design Department, focusing on the design and manufacture of heat exchangers such as fuel coolers, transmission oil coolers, and radiators for construction heavy equipment and agricultural machinery.
- Controlled welding conditions during brazing processes and assembled cooling modules, conducting thorough inspections to ensure product quality.

Republic of Korea Navy (Korea Coast Guard)

Oct 2020 - Jun 2022

Service Member

- Volunteered for Jeju Island Coast Guard based on exceptional performance; completed marine training and served in the engine department, contributing to the maintenance and operation of maritime equipment.
- Special Force 2nd Place of Korea Naval Training Center

School Activity

Virginia Tech

Undergraduate Research (Tensile Testing of Fibers for Mechanobiology)

Aug 2025 - Present

- Conducted fabrication and tensile testing of polymeric nanofibers using STEP(Spinneret based Tunable Engineered Parameters) technology to analyze fiber network mechanics and their role in mechanobiology.
- Applied video microscopy and MATLAB analysis to study cell-fiber interactions, while preparing weekly reports and presentations integrating literature review and experimental findings.

LOGOS, Christian Fellowship Club

Aug 2023 - Present

Large group Leader, Administrative team Leader

Virginia Tech, VA

- Served as Vice Leader of a team of 10+ members for two semesters, facilitating and leading weekly discussions on key topics.
- Oversaw high-level financial operations for the church as the administrative team leader and managed budget for monthly church events.