Woojin Bae

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WORK EXPERIENCE

Multi-dimensional Materials Chemistry Lab | SNU, Seoul, Republic of Korea

Mar. 2024-Present

- Synthesis Ag cluster-based AIGS(silver indium gallium sulfide)-core
- Analyze LMBs SEI Components by Cryo-TEM Imaging and region-specific characterization

Marketing team & manager | SNU festival, Seoul, Republic of Korea

Jun. 2021-May. 2022

- Promoted the festival through the online website during COVID-19
- · Created and performed promotional content and videos
- Secured a \$2300 sponsorship agreement with the shared scooter company 'Swing'

Vice president | CBE Interim Leadership, Seoul, Republic of Korea

Dec. 2020-Mar. 2021

• Conducted freshman orientation, facilitating the integration of new students, via Zoom during COVID-19.

R&E Student | Center for Cell-Encapsulation Research, KAIST, Daejeon, Republic of Korea

Mar. 2018-May. 2019

- Created a porous titanium oxide shell to facilitate the simple culturing of astrocytes
- · Confirmed the function of encapsulated astrocytes by analyzing the length of neurons co-cultured with astrocytes
- · Poster presentation on 'Korean Chemical Society Future Chemist Research Presentation Competition

EDUCATION

Bachelor's degree in Chemical Biological Engineering | Seoul national University

Major in Chemistry | Daejeon Science High School for the gifted

2020-Present
2017-2020

HONORS & AWARDS

3rd Prize | AUA-HKUST Entrepreneurship Bootcamp Final Presentation

Jul. 2024

• Borderless Healthcare: A Platform for Overseas Patients to Obtain Prescriptions Everywhere

Excellence Poster Award | The 5th Undergraduate Student Advanced Experimental Research Program

Jan. 2024

 Consideration on the relationship between microscopic structure and macroscopic shape according to the synthesis conditions of Hollow ZSM-5

Team Section Selected | Changing SNU Contest

Jul. 2022

• Spatial-restricted messenger. The receiver can open a message only at the point where the sender had designated it to do so. Consists of an experimental UI Design, including 100 different interfaces for the loading screen.

The Education and Research Foundation Scholarship | College of Engineering, SNU

Mar. 2021-Jun. 2021

Merit-based Scholarship | Department of Chemical Biological Engineering, SNU

Sep. 2020-Dec. 2020

2020 Future Chemistry Talent Award | The Korean Union of Chemical Science and Technology Societies

Feb. 2020

• Awarded as one of the top 6 science high school students in Korea

Excellence Poster Award | 2019 Gifted School R&E Joint presentation

Jan. 2019

• Regulation of astrocyte growth using porous titanium oxide shells

Encouragement Prize | 2017 Korea Foundation for the Advancement of Science & Creativity Conference

Jan. 2018

• Correlation between Z-potential and contact angle of QDs solution

INTERNATIONAL ACTIVITIES

AUA-HKUST Entrepreneurship Bootcamp 2024 | HKUST, Hong Kong.

Jul. 2024

SNU-UMN Culture Exchange Program | via Zoom

Mar. 2024-Apr. 2024

SNU in EU program | Brussels School of Governance, Belgium

Jul. 2024

• Understanding European Unions (EU)

Make a presentation about "The European External Action Service"

Korean representative | 51st Joint School Science Exhibition, Hong Kong

Aug. 2018

• Wettability Change of Self-Assembled Monolayers (SAMs) of Thiol on Gold

Summer International Exchange program | KAMS, Fort Hays state University, USA

Jul. 2018

• Synthesis of conventional Quantum dots, CdSe; eco-friendly Quantum Dots, ZnSe. Furthermore, applying them on Gratzel cell

EXTRACURRICULAR ACTIVITIES

Presentation on TEM Seminar | Multi-dimensional Materials Chemistry Lab, SNU

May. 2024

Amplitude and Phase Contrast

2023 Winter Vacation Data Science Bootcamp: Computing | Graduate School of Data Science, SNU

Feb. 2024

Encouragement Prize | SNU in the World Program UCC Contest, Office of International Affairs, SNU

Nov. 2022

Serving military service | Daegu, Republic of Korea

Aug. 2022- May. 2024

- 110th Squadron, operating F-15K Slam Eagle
- Selected as an exemplary soldier

Student Mentor | Seoul National University Social Responsibility

Apr. 2023-Present

• Selected as a superb mentor

SKILLS & LANGUAGES

- Instruments: Cryo-TEM, SEM, UV-Vis, OM, PL
- Language: Korean (Native), English (C1, TOEFL 95)
- Computer Language: Python, Html, CSS, JSON, C (Experienced)
- Design: Adobe Premiere Pro, Adobe illustrator, Color correction