

# Badraa Bat-Ulzii

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CONTACT	Undergraduate student Computer Science and Engineering, UNIST Email: <a href="mailto:bbadraa99@unist.ac.kr">bbadraa99@unist.ac.kr</a> Website: <a href="https://badraabatulzii.com/">https://badraabatulzii.com/</a>	50 UNIST-gil, Eonyang-eup Ulsan 44919, Republic of Korea
EDUCATION	<b>Ulsan National Institute of Science and Technology (UNIST)</b> Undergraduate student in Computer Science	Ulsan, Korea SEP. 2020 – Present
HONORS AND AWARDS	<b>Best Paper Bronze Medal</b> Brain to Society program (BTS) 2022 <b>Full Tuition and Scholarship recipient - 4 years</b> UNIST <b>Gap Year Internship Program</b> Gerhub <b>Mongolian Young Scholar Award</b> Zorig Foundation <b>Full tuition scholarship - 1 year</b> LeTourneau University, USA	2022 2020 2020 2019 2019
PROGRAMMING LANGUAGES	<b>Python, C++, Java</b> <b>JavaScript, HTML, CSS,</b>	
FRAMEWORKS AND LIBRARIES	<b>React, Next.js, Spring Boot, Docker, jQuery, MySQL</b> <b>MongoDB, Git, Maven,</b>	
PERSONAL PROJECTS	<b>Portfolio Website v.1</b> Personal <ul style="list-style-type: none"><li>• Crafted my portfolio website v.1 using Next.js, Tailwind CSS, and TypeScript for a sleek, responsive, and type-safe experience.</li><li>• Engineered a modern and clean user interface, ensuring seamless navigation and dynamic content presentation.</li></ul> <b>Gather</b> Co-founder <ul style="list-style-type: none"><li>• Initiated a web application designed for finding study or hangout “buddies” to promote socializing on campus at UNIST</li><li>• Implemented the front-end using React and backend using Spring Boot framework</li><li>• Developed a database using MongoDB compass and tested the CRUD operations and enabled the search algorithm</li></ul>	Ulsan, South Korea APR. 2024  Ulsan, South Korea FEB. 2023 – June. 2023
INTERNSHIP EXPERIENCE	<b>Perception Learning Lab, UNIST</b> Android Developer <ul style="list-style-type: none"><li>• Extend backend features using Kotlin, seamlessly integrating them into the existing Eye Training application</li><li>• Enhance database functionality by integrating MongoDB to support new features, ensuring efficient data management</li><li>• Conduct thorough testing and debugging of the new features to ensure compatibility and stability across various devices</li></ul> <b>Rubick AI</b> Software Engineering Intern <ul style="list-style-type: none"><li>• Developed a landing page from scratch using Next.js, Tailwind CSS, and Typescript for the CarCare project (<a href="https://carcare.mn/">https://carcare.mn/</a>)</li><li>• Incorporated fully responsive design for small to extra large devices</li><li>• Integrated interactive features and optimized the user experience using React Framer Motion</li></ul> <b>Digital Solutions</b> Software Engineering Intern <ul style="list-style-type: none"><li>• Collaborated designing the “Guyuk” project website using HTML and CSS (<a href="https://guyuk.mn/">https://guyuk.mn/</a>)</li><li>• Performed Metaverse market analysis and helped finding the niche that is suitable in Mongolia</li></ul>	Ulsan, South Korea MAR. 2024 - Present  Ulaanbaatar, Mongolia JAN. - FEB. 2024  Ulaanbaatar, Mongolia JAN. - FEB. 2023

RESEARCH  
EXPERIENCE

**Tactile Interaction (TACT) Lab, UNIST** Ulsan, Korea  
Research Intern  
Mentors: Prof. Jaeyeon Lee (UNIST), Prof. Seongkook Heo (UVA) MAR. - NOV. 2023

- Co-created dynamic haptic system
- Developed experimental software and virtual context using Python
- Designed qualitative and quantitative haptic research experiments on user perception

**Brain To Society (BTS) program, UNIST** Ulsan, Korea  
AI Research Developer MAR. – DEC. 2022  
Mentors: Prof. Jeongseob Kim (UNIST)

- Researched Housing Price Prediction using Machine Learning in Ulsan, Korea
- Constructed and Evaluated 11 Machine Learning Regression models including XGBoost, Catboost, Light GBM, etc
- Interpreted the hidden layers of the model using Shapley Additive explanations method

LEADERSHIP AND  
ACTIVITIES

**UNIST International Student Organization (UISO)** Ulsan, Korea  
Vice President APR. 2022 – Mar. 2023

- Led a team of 12 students to organize over 15 events and activities for over 200 international students
- Facilitated clear communication with stakeholders, including the Center of International Affairs (CIA), international students, and other student organizations on campus
- Fostered a welcoming and inclusive community for international students at UNIST

**MarbleUs Environmental Club** Ulsan, Korea  
Member SEP. 2021 – Mar. 2022

- Promoted environmentally friendly living through YouTube videos (@marbleus6456)
- Participated in mothly plogging, a combination of jogging and picking up litter
- Placed designated space for ice-pack waste at campus for recycling