Minseo (Brenda) Kim

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EDUCATION

Columbia University, *Master of Science in Environmental Health Data Science* New York, NY | *August 2025 = Present*
Relevant Coursework: Public Health GIS, Toxicology, Epidemiology, Biostatistical Methods

Boston University, *Bachelor of Science in Data Science, Minor in Biology* Boston, MA | *September 2023 - May 2025*
Skills: Quantitative Environmental Modeling, Introduction to Bioinformatics, Data Mechanics, Statistics

PROFESSIONAL EXPERIENCE

STEM Pathways, *Undergraduate Research Intern* Boston, MA | *May 2024 - December 2024*

- Conducted advanced modeling techniques, integrating optical engineering principles and bioinformatics for quantitative data analysis on biosensor efficacy, coded and designed a wiki website for Boston University's iGEM team, AGRINOVA, using React and TypeScript, receiving a gold medal at the international competition.
- Collaborated with multidisciplinary teams to design and improve the NOVA device for soil contamination detection.

ATG LAB, *Summer Research Intern* Seoul, Korea | *July 2023 - August 2023*

- Supported software gamification consulting for "Smart Aging Public Service" and "Edge Cloud Vehicle Sharing" platforms, resulting in increased project engagement by 15%.
- Delivered dynamic presentations and assisted software education training sessions for public service leaders.

PROJECTS & RESEARCH

CARB Agricultural Remote Sensing, *Environmental Data Analyst* Boston, MA | *December 2024 - May 2025*

- Contributed to developing a framework to monitor carbon emissions and agricultural practices, focused on tillage, using remote sensing data and ecosystem modeling.
- Focused on validating data layers to detect crop management events, aligning workflows with CARB's carbon inventory.
- Helped refine tools to support sustainable agriculture and data-driven GHG reduction strategies.

SeasonWatch, *Data Analyst* Boston, MA | *September 2024 - December 2024*

- Investigated phenological changes in tree species across India to assess the impacts of climate change on flowering and fruiting patterns, focused on vulnerable species in Kerala using citizen-science data and historical records.
- Analyzed 200,000+ citizen-science observations to identify earlier onset times by up to 3 weeks for key tropical species using regression, survival analysis, and Markov modeling.
- Created visualizations and statistical outputs for top 30 observed species, addressed data discrepancies, improving accuracy by 4%, and contributed visualizations for scalable ecological monitoring systems.

iGEM AGRINOVA, *Wiki Coder and Researcher* Boston, MA | *April 2024 - December 2024*

- Developed and modeled "NOVA," a biosensor-based detection device integrating fluorescent optics, microfluidics, and contamination mapping software.
- Received patent approval from Boston University for its innovative design and real-world applicability.
- Presented at the iGEM International Competition in Paris, where the team earned a Gold Medal.

Predicting Potential Heart Disease, *Data Analyst* Boston, MA | *March 2023 - May 2023*

- Developed and trained predictive models using Decision Tree Classifier and Support Vector Machines (SVM) to forecast heart disease presence based on patient attributes.
- Conducted correlation analysis on key health indicators and optimized model performance, achieving robust predictions.

LEADERSHIP & TEACHING EXPERIENCE

BU LikeLion, *Founder and President* Boston, MA | *June 2023 - May 2025*

- Founded and directed BU's tech mentorship initiative, training 50+ members in Python and Java-based projects for national hackathons, leading to a 90% competition completion rate.

S-PLAN Academy, *Teaching Assistant and Mentor* Ilsan, Korea | *January 2020 - Present*

- Mentored 50+ high school students on personal statements and interview coaching, achieving a 96% acceptance rate to target institutions.

SKILLS

Computer Skills : Python, R, MATLAB, MySQL, CSS, Typescript, React, GitHub, QGIS, ArcGIS**;** Microsoft 365
Language: Bilingual in English and Korean; Intermediate level in Japanese