

# Sean Seonghyun Yoon

655 Escondido Rd, Stanford, CA 94305

(650)-387-0196 | [sean777@stanford.edu](mailto:sean777@stanford.edu) | [linkedin.com/in/seanyoon777](https://www.linkedin.com/in/seanyoon777)

## Education

### Stanford University

Stanford, CA

*B.S. in Computer Science and Mathematics – Double Major*

09.2022 – 06.2026

- GPA: 3.9/4.0
- Relevant Coursework: Software Engineering for Scientists, Computer Organization & Systems, Programming Abstractions, Applied Matrix Theory, Linear Algebra and Differential Calculus of Several Variables

## Skills and Interests

**Programming Languages:** C/C++, Python, R, Wolfram Mathematica, MATLAB, HTML, CSS, Javascript, Numpy

**Human Languages:** English (Native proficiency), Korean (Native proficiency), Chinese (Limited proficiency)

**Softwares:** LaTeX, Git, Word, PowerPoint, Excel, Adobe Photoshop, InDesign

## Work Experience

### BnK IT Consulting

Seoul, South Korea

*Web Designer*

06.2022 – 09.2022

- Designed website partly using Javascript and visualized company's unique project management technology by firsthand reviewing internal documents to attract clients from the fintech industry, receiving commendation from CEO

### French National Institute for Research in Digital Science and Technology (INRIA)

Paris, France (Virtual)

*Research Assistant*

03.2021 – 05.2021

- Suggested various ideas to find an algorithm using local matching indicators for 2D optimal transport problems
- Wrote academic article to summarize findings on algorithm that uses local matching indicators to optimize 1D resource distribution

## Organizations and Leadership

### Project Renaissance

*Founder, Leader*

08.2019 – 06.2022

- Managed 7 people team to implement numerical algorithms in Mathematica and MATLAB, approximating the movements of fluid and deformable bodies to successfully design a media art exhibition inspired by Korean traditional folding screens

### International Mathematical Modeling Challenge (IMMC) National Team

*Team Leader, Researcher*

03.2019 – 03.2022

- Received honorable mention (3<sup>rd</sup> place) twice out of 50+ countries by developing models that: (1) assess athletic performance using maximum likelihood estimate, (2) minimize store damage during high customer flow

### International Statistical Literacy Project (ISLP) National Team

*Team Leader, Researcher*

08.2019 – 03.2022

- Won 2<sup>nd</sup> place out of 5000+ teams and exhibited poster at the 2021 International Statistical Institute's World Statistics Congress by leading team to analyze data on rural hometown's waste management policies using R and Excel
- Won national grand prize twice by analyzing data on COVID quarantine policies and teenage caffeine consumption

### Korea Gifted Students Evaluation Association (KGSEA) Math Circle

*President*

03.2021 – 03.2022

- Served as president of most prestigious math circle in Korea
- Organized 2 online research forums for total 500+ students and created annual publication guideline using LaTeX
- Applied Agile Team Management and Critical Path Methods to successfully organize math enrichment festival in school, exhibiting math-inspired artworks, organizing interactive math-related activity booths, and fundraising

## Publications and Research Experience

### “Research on Possibility of Ring Formation of 10199 Chariklo by Partially Inelastic Collision”

- Implemented simulations in Mathematica to investigate various ring formation scenarios around the asteroid 10199 Chariklo
- Published on the International Journal of STEAM after review by the Korea Science Service
- Received Bronze Award at Youth International Science Fair out of 440+ teams

### “Derivation and Generalization of the Law of Cosines onto Arbitrary Dimensional Vector Spaces”

- Discovered what is believed to be a novel rigorous proof for the multidimensional Law of Cosines using wedge products, under supervision of Dr Julien Munier

## Certifications

### HarvardX Professional Certificate in Data Science

01.2021 – 09.2022

- Learnt principles of machine learning, statistical inference, data mining, and data visualization using R
- Classified hand posture using logistic regression, random forest, and LOESS in R for final project, receiving passing grade