Jieun Seong

jieun-seong.github.io jieun.thinks@gmail.com jieun-seong 404.667.6952

EXPERIENCE

Software Research Engineer @ Intel Oct 2022 – Present

- ✓ Went above and beyond on quarterly targets every quarter since Oct 2022 by delivering photo-masks and softwares on/before deadlines with top quality through effective communications with stakeholders and clear focus.
- ✓ Delivered photo-masks 50% faster compared to the median execution time.
- ✓ Collaborates with teammates on **git** and performs thorough code reviews.
- ✓ Writes unit tests using **pytest** and maintains gitlab **CI/CD** pipelines.
- ✓ Received divisional recognition awards in 2022 for building an automated pipeline with team using primarly **python** on **git** that significantly decreased the team's manual work and thus the runtime and the human errors, and in 2025 for timely delivery of a high-quality product that enabled accelerating High-NA scanner introduction at Intel.
- ✓ Proposed and developed a mathematically rigorous method to automate parameter sampling for geometries to be printed on a photo-mask. Reduced the time of manual labor and back-and-forth discussions between stakeholders from weeks to a day. Standardized the parameter classes across different geometric patterns to remove repetition and increase clarity.

Graduate Research and Teaching Assistant @ Georgia Tech 2017 – 2022

- ✓ Instructed 30–60 undergraduate students every semester for five years in college-level mathematics courses, including **Linear Algebra**, Multivariable Calculus, and Differential Equations
- ✓ Collaborated closely with instructors and other teaching assistants to ensure fair and consistent evaluation of student work through joint grading of quizzes, exams, and projects
- ✓ Offered weekly office hours with a patient and approachable demeanor, supporting students' individual learning needs and promoting academic confidence

EDUCATION

- ✓ **MS in Computational Science and Engineering** @ Georgia Tech ... GPA: 3.60/4.00 2021 – 2022
- ✓ **MS in Mathematics** @ Georgia Tech ... GPA: 3.80/4.00 2017 – 2019
- ✓ **BS in Discrete Mathematics** @ Georgia Tech ... GPA: 3.92/4.00 2013 – 2017

RESEARCH PROJECTS

Differentiability at the Tip of Arnold Tongues

- ✓ Proved analytically the differentiability at the tip of the Arnold Tongue – the set of parameters in the standard map equation that gives a given rotation number. Used **C** to carry out **numerical** experiments to investigate the differentiability.

SKILLS

Programming Languages

- ✓ Python, C/C++, Shell, MATLAB, Java

Tools, Platforms, Libraries

- ✓ Git, Linux, Pandas, NumPy, PyTorch, TensorFlow

Relevant Courses and Knowledge

- ✓ Computer Vision, Dynamical Systems, Differential Equations, Numerical Analysis, Linear Algebra, Modeling and Simulation, Machine Learning, Deep Learning, Numerical Linear Algebra

Languages

- ✓ English (fluent), Korean (native), Japanese (JLPT N3), Chinese (beginner)

CERTIFICATIONS & AWARDS

- ✓ LinkedIn Skill Assessment: Machine Learning, Python, C++, MATLAB
- ✓ Intel Logic Technology Development Divisional Recognition Award 2025
- ✓ Intel Tapeout Technology Development Divisional Award 2022
- ✓ Georgia Tech President's Undergraduate Research Award 2016