

Edward Ju

✉ eju@caltech.edu 🌐 www.edward.computer ☎ +1 (626)-773-2964

• U.S. Citizen 🏠 1200 E California BLVD MSC 531

EDUCATION

- **California Institute of Technology**
 - Computer Science Major (Robotics and Learning & Vision Track) + Robotics and Aerospace Minor
- **University of Guam (2022.08~2023.05)**
 - Dual enrollment in high school (4.00 GPA)
- **Stanford Pre-Collegiate Studies University-Level Online Math & Physics (2022.06~2022.12)**
- **Johns Hopkins Center for Talented Youth (2022.08~2023.04)**

PROJECTS

- **Caltech Air and Outer Space CRATER (Caltech Rover Autonomy, Technology, and Exploration Research) Software Team**
 - Working on the CRATER wheel system
 - Planned to participate in the University Rover Challenge
- **CHARIOT (Cooperative Heterogeneous Autonomous Robots for Intra-Crater Operations and Transport) System Engineer**
 - Working on developing the CHARIOT concept design. Currently working on autonomy design and development for flying and hopping robots that could land in slanted slopes.
- **NASA Big Idea Challenge (2024 Inflatable Challenge Caltech Team)**
 - Participating in the 2024 NASA Big Idea Challenge
 - Giving idea and developing the inflatable system for the lunar infrastructure
- **Caltech Numerai**
 - Developing the machine learning model that can be used by the hedge fund to predict the stock price (Sponsored by Numerai)
- **Programming Algorithm Book**
 - Writing my own programming algorithm book
 - Introduce C++ programming and various algorithms for competitive programming

WORK EXPERIENCE

- **Research Assistant at University of Guam (2022.05~07)**
 - Summer math research assistant
 - Research on the topic “An Error-Correcting Magic Trick using the 9 Element Field” with stipend of \$500 (Research Funded by MAA)

- Presented on public and conference
- **Research at Kyonggi University (2021.06~07, 2022.01)**
 - Research on the project “Development of Low-Cost Transparent and Flexible Hydroxypropyl Cellulose Display”
 - 1st place on 2022 Guam Island wide Science Fair high school division (Physical Science and Math category)
- **Internship at Advanced Institute of Convergence Technology, Seoul National University (2020.11~12)**
 - Learned method for the detecting and analyzing the moving object using optical flow and time-to-collision model

DISTINCTIONS

- Facebook Hacker Cup Round 2 Qualifier
- Google Code Jam Round 2 Qualifier
- American Invitational Mathematical Examination (AIME) Qualifier
- Stanford Math Tournament International Honorable Mention
- Berkeley Math Tournament Distinguished Honorable Mention (26th Individual Round)
- Georgia Tech High School Math Competition 4th place (National)
- Asia Pacific Conference of Young Scientists 1st place Poster Presentation (Gold) / 2nd place Oral Presentation (Silver)
- Canadian Open Mathematics Challenge Top 97% (Performance with Distinction)
- University of Guam's 12th Annual Math Day Competition 1st place (Perfect Score)
- 44th Guam Island Wide Science Fair 1st place (Math and Physical Science Division)
- International Youth Math Challenge National Award / Silver Award
- Korean Olympiad of Informatics Honorable Mentions
- Nexon Youth Programming Competition (NYPC) Round 2 Qualifier
- USA Computing Olympiad Silver
- Math Kangaroo State Winner / National Rank: 17
- AP Scholar with Distinction
- University of Central Florida Programming Competition 7th place (Division 2)
- St. John’s School Math Award (Given to 1 student)

SKILLS

- **C++, Java, Python, HTML, CSS, JavaScript, LATEX, Machine Learning, Data Analysis, Robotics, Algorithms, Competitive Programming, CAD, System Engineering**

PUBLICATIONS

- Edward Ju, “Development of Transparent and Flexible Hydroxypropyl Cellulose Display”,

Columbia Junior Science Journal, *Published*, 2023.

CONFERENCES

- University of Guam, College of Natural & Applied Sciences (CNAS) STEM Conference, *An Error-Correcting Magic Trick using the 9 Element Field* (2023)
- International Mathematics and Statistics Student Research Symposium, *Use of Finite Field to Develop an Error-Correcting Magic Trick* (2023)