# Jaewook Lee

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#### **Education**

Cheongshim International Academy(Korea, Gapyeong) Korea International School Jeju(Korea, Jeju)

~September 14, 2020 August 2017~September 2020

GPA: 4.78 weighted 5.0 scale

**TOEFL: 106** 

College Level Coursework: Computer science A: (5/5), Statistics: (5/5), Macroeconomics: (5/5), Coursera-Machine

learning(Stanford), 3d reconstruction(Columbia University)

Skills: Python(Deep Learning), HTML/CSS/JS/Node.js/Database, 3d reconstruction, C++, Java, Cryptography

## **Coding Experiences & Projects**

AI Watcher; CTO

2022 April - Now

• Created an AI exam supervising system that detects students' eyesight, the presence of other people, cheating resources, computer screens, and sound. During online testing, the program also verifies students' identities and reconstructs their rooms in 3-D, ensuring there are no cheating materials nearby.

ABCEDE; CTO 2022 April - Now

• Built a website for ABCEDE, an online zoom mentoring class for business, to control payments, schedule Zoom meetings, and send email reminders.

AI Traffic light; CTO 2022 June - Now

- Created an AI traffic light that identifies socially disadvantaged people. By using CNN, our team could identify the age, gender, and wheelchair of the walker and adjust the crosswalk crossing time. Also, our work detects white canes and guide dogs and alerts the traffic lights to visually impaired people.
- Codefair competition Bronze; KBSC online vote first prize(1499 votes), top 15

#### QR code phishing prevention app; Leader & Programmer (Group of 4)

2021 May - 2022 February

2022 January

2022 August

2022 January

- Implemented one-way encryption hash- for data integrity since QR code phishing was on the rise during Covid-19.
- Developed a QR code phishing prevention app using Python that uses HMAC for login and registration.
- Developed a business plan that included cost analysis and marketing analysis with the team.
- GYSTB 3rd prize, Conrad innovator, Blue Ocean Entrepreneurship Top 25.

### Supplementing the defect of one-way cipher by encryption of fingerprint; Leader & Programmer 2021 March - December

- Identified problem drawback of one-way cipher, hash algorithm. The same input results in the same output, so we utilized fingerprint and the key and therefore leading to a different output. It not only took more time to Brute Force the new program but also developed tolerance to other hacking tools.
- Project Research competition gold prize

#### **Programming Awards & Achievements**

USACO Gold (11, International)

School Algorithm Competition 3rd prize, 1st prize (10, 12)	2020 December, 2022 July
Blue Ocean Entrepreneurship Competition Top 25 (11, International)	2022 February
GYSTB 3rd prize (11, International)	2021 June
Conrad challenge innovator (11, International)	2022 February
Project research competition gold prize (11, School)	2021 December
SW coding competition-2nd prize(10, 11, School)	2018 September, 2021 December
VCEE finalist (11 National)	2022 M

KSEF finalist (11, National)

2022 March
AMC 12B Qualifier(12, International)

2022 November

Korea Codefair Bronze(12, National)
Award for outstanding performance in Computer science (11, School)

Award for outstanding performance in Math Research(12, School)

2023 January

High honors prize (9, 10, School)

ACG certificate for creative thinking (10, School)

2019 August - 2020 July
2021 January

English language competition, Second language competition silver prize (11, School)

2020 December

#### **Athletics Awards & Achievements**

Korea 1857km Cycling Grand Slam, (12, National)

6th Gangnam Fencing Championship finalist & 3rd prize(9, Regional, Floret)

7triathlon completion(11, 12)

2018 June - 2022 August
2018 September
2021 August, 2022 August