#### **EMILY KIM**

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Harvey Mudd College | Class of 2019 ● Anticipated Major: Math-CS or Engineering | Current GPA 3.54/4.00 Spring 2017 Courses: Data Structures/Prgm Development, Engineering Mathematics, Experimental Engineering, Digital Elec & Comp Engineering, Introduction to Sound Studies

#### WORK EXPERIENCE

CJ E&M Entertainment South Korea May-August 2016

- Valley Rookie Summer Intern Project, Event Management
- o Managed the planning and the preparation of Jisan Valley Rock Festival, one of the biggest festivals in South Korea by supporting marketing team by creating videos for land art artists by planning the overall layout.
- Organized several brief events for concert audiences to enjoy their breaks between the stages.

**HipHop Ill Zine** *Hip Hop Web Magazine on Facebook* 

South Korea

January-August 2015

- Part-time concert manager & journalist
  - o Supervised the planning and communication of well-known hip hop concert series of hip hop artists, Realiz, and produced articles about the current hip hop scene.

### CheongShim Int'l Academy, Harvey Mudd College

South Korea, USA

August 2013-Present

- Part-time Tutor/Instructor
- Opened courses for core subjects (Algebra, Geometry, AP Calculus, AP Statistics, SAT Physics and AP Physics) for middle and high school students, instructing about the key concepts and test preparation at Cheong-Shim Int'l Academy.
- o Tutored K-12 students from underrepresented families, math and science subjects and helped plan their future college goals, in Harvey Mudd Homework Hotline and Harvey Mudd Upward Bound Program.
- o Graded and tutored the Intro CS course in the lab hours as a teaching assistant for HMC CS Department.

#### LABORATORY AND RESEARCH EXPERIENCES AND OTHER PROJECTS

**Clinical Engineering Project - Nippon Antenna** 

Harvey Mudd College

October 2016-Present

- Clinical Engineering Project
  - Worked in a 4-person team to solve a sound quantity and comfort problem in Nippon Antenna's Bluetooth neck speaker for advanced user compatibility. Proposed 6 different design alternatives and made suggestions for the currently existing product for better user experience and marketability.

Engineering Design Project - William Marks Corporation Harvey Mudd College September 2016–Present

- Clinical Engineering Project: Human Centered Design, Prototype Developing Project
  - Worked in a 4-person team to develop an educational and environmentally friendly toy to solve a proposed problem from the client. Created a toy rocket kit from recycled bottles, bamboo wood and magnets and received positive feedback from the targeted consumers.

### **Systems Engineering Project: Underwater Robots**

Harvey Mudd College September 2016–Present

- In-Class Robotics Project
  - Designed an underwater robot based on lumped-element modeling and LabVIEW signal processing design for physical implementation.

# **Game Implementation**

Harvey Mudd College December 2015, May 2016

- In-Class Programming Project
  - o Pair-programmed an implementation of a python-based flash game with zombies and humans using Python Graphics. Implemented and debugged a Java-based flash game Spampede using Hash methods.

# Investigation on the Relationship Between Math and Korean Traditional Music May 2013-September 2014

- Independent Research
- Analyzed similarities and differences between Korean traditional royal and folk music mathematically, using
  basic scale patterns with statistics and Fibonacci sequence. Presented the project and won Silver Medal and Mu
  Alpha Theta Award from Korea Science and Engineering Forum 2013, and Minister of Education and Advance
  Science of Warsaw Award with 2000 euros of scholarship at European Union Contest for Young Scientist.

#### **CLUB ACTIVITIES**

- Korean Scientists and Engineers Association: Volunteered at the Major Fair in UCLA and helped revive KSEA Harvey Mudd as a secretary of Harvey Mudd KSEA.
- Korean Society Association: Hosted cultural events to advertise about the Korean culture.

### **SKILLS**

Language: English, Korean (Native) Programming: Python, Java, Racket, Assembly, MATLAB Computer Technology: SolidWorks, LabVIEW, LaTeX, Photoshop, Illustrator, MS Word, Powerpoint, Exel INTERESTS Art (Illustration/Croquis), Music Composition, Dance, Singing, Swimming, Pilates, Yoga, Traveling