

# SeongKweon Alex Hong

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<b>EDUCATION</b>	<b>Carnegie Mellon University</b> , Pittsburgh, PA Bachelor of Science in Electrical and Computer Engineering Double Major in Human Computer Interaction Overall GPA: 3.89 / 4.0	Expected: May 2021
<b>RELEVANT COURSES</b>	Programming Usable Interfaces Fundamentals of Programming, Structural Design of Digital Systems Cognitive Psychology, Signals and Systems, Introduction to Computer Systems Humanoids	
<b>SKILLS</b>	Computer Languages: C, Python, JavaScript, HTML, CSS, System Verilog, C#, Java, Swift, Arduino Applications: Unity, Adobe Photoshop, Sketch, InVision, Balsamiq, MatLab, Github	
<b>PROJECTS</b>	<b>Pre-prosthesis Training Games Development, Research Assistant</b> , Pittsburgh, PA <ul style="list-style-type: none"><li>Developed an app that is controlled by arm muscles—includes FlappyBird and 2 other games, and a VR SpaceShooter game.</li><li>Created a control module that classifies signal inputs from the muscle tracking sleeve using pattern recognition.</li><li>Analyzed limitations and requirements to prototype a healthful game with enhanced exercise experience.</li><li>Designed exciting game features and non-intrusive hand gesture icons for peripheral vision</li></ul> <b>Teleoperation in VR with Baxter Robot, Research Lead</b> , Pittsburgh, PA <ul style="list-style-type: none"><li>Developed Baxter Robot to imitate user's arm movement in real time, detected by Leap Motion, where the user sees through Baxter's lens remotely by wearing Google Cardboard, providing the VR environment.</li><li>Designed a webcam server in Raspberry Pi to send live videos from cameras of "interpupillary distance" to mobile phone, which would then be attached to the Google Cardboard for the VR experience.</li></ul> <b>Music Game Development in Python, Project Lead</b> , Pittsburgh, PA <ul style="list-style-type: none"><li>Designed a 3D game similar to the Tap Tap game for the Hackathon 112, winning the <b>Best Game prize</b>.</li><li>Generated balls based on the note and beat of a music using Fast-Fourier Transform modules in scipy.</li><li>Enabled compatibility with any sound file types.</li></ul> <b>Fortress Tank Game Development, Project Lead</b> , Pittsburgh, PA <ul style="list-style-type: none"><li>Designed a user-friendly 2-dimensional tank game, as a term project in Carnegie Mellon University.</li><li>Implemented curved terrain destruction and movement along the curve, using pixel color detection and modification to implement terrain destruction.</li><li>Enabled dynamics using friendly and natural animations and shading to enhance the user experience.</li></ul>	Dec. 2016 - Aug. 2017  Jan. – May 2017  April 2016  Mar. 2016
<b>EXPERIENCE</b>	<b>Medical Sergeant</b> , Republic of Korea Army <ul style="list-style-type: none"><li>Provided first aid and other medical care for injured soldiers, assisting nurse officers and doctors.</li></ul> <b>Teacher's Assistant</b> , Carnegie Mellon University <ul style="list-style-type: none"><li>Ran labs and office hours, reviewing critical concepts and grading exams, for an introductory Electrical and Computer Engineering course.</li></ul> <b>iOS Development Intern at TeddyMozart</b> , Brooklyn, NY <ul style="list-style-type: none"><li>Web-scraped songs for children and designed recording and play-music UI, collaborating with the Technical Co-founder.</li><li>Published the TeddyMozart app for iOS in the Apple Store.</li></ul>	Sept. 2017 - May. 2019  May - July 2017  Sept. 2016 - Feb. 2017
<b>HONORS</b>	Hack112 hackathon, <b>Best Game prize</b> from "Tap112" Dean's List: Carnegie Institute of Technology	April 2016 Fall 2015 - Fall 2016