KAI-CHIEH (Kenneth) HUANG

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A *creative, analytical, and hardworking* MS-HCI student seeking to leverage
software/physical prototyping skills and *UX knowledge* as a UX engineer intern

Education

M.S.,	Human Computer Interaction, Georgia Institute of Technology	Aug'18-Current
B.S.,	Electrical Engineering, National Taiwan University	Sep'11-Jun'15

Skills

Software	Physical	User Experience
desktop application^3, Android^2, Unity^2	Arduino^3, FPGA^2, Solidworks^3	UX research^2, UX design^2, ideation^2

Web	Programming Languages
HTML^2, CSS^2, website^2, progressive web app^1	C++^{3}, JavaScript^2, Java^2, Python^1, VBA^2, Perl^2, Tcl^1, Verilog^3

Superscripts denotes the level of each skill: ^{3}Advanced ^{2}Intemediate ^{1}Basic

Projects

Balance Shifting Stylus *(Arduino, Unity, SolidWorks)*   Oct'18-Jul'19
- Designed and built a stylus capable of sensing orientation, adjusting balance, and interacting with apps on a tablet.
- Integrated an IMU, a rotary encoder, and a belt and pulley system with Arduino and 3D printed parts.
- Developed the algorithm for orientation sensing using quaternion data from the IMU
- Developed the PID controller for pen balance control.
- Created games and applications with Unity to demonstrate prototype capabilities.

Online Statistic Reporting and Managing System *(UI design, data manipulation)*   Nov'17-Apr'18
- Communicated with stats reporters and users (organization leaders) to design and iteratively improve the system.
- Realized the UI, data storage, and data visualization via Google Sheets with Google Apps Script.

Computer Control via Face Tracking *(C++, signal processing, image processing)*   Sep'14-Jul'15
- Built a webcam-based system in C++ enabling users to remotely control the computer with the head.
- Devised a speed-adaptive sensor input filter to enhance user experience.
- Received A+'s for two Special Project courses that are 2 semester credit hours each.

Outfit Visualization Device *(ideation, FPGA, Verilog)*   Sep'14-Jan'15
- Explored ways to satisfy a person's needs in the beginning of each day.
- Designed an interactive FPGA device to assist the user in selecting an outfit.
- Implemented the background-removal algorithm and swipe animation handling on the FPGA device using Verilog.

Photo-tagging App *(ideation, UI design, Android)*   Jan'14-Jun'14
- Designed a photo management mobile app that finds and classify photos according to tags assigned.

Work

HCI Research Assistant, *National Taiwan University / National Chiao Tung University*   Oct'18-Jul'19
- Completed the entire research process on a new haptic feedback on styli (first author of the work).
- Conducted literature review on various HCI topics with a focus on top conferences such as CHI and UIST.

IC Realization Intern, *MediaTek Inc.*   Jul'14-Aug-14
- Accelerated IC design workflow by programming in Perl and Tcl to reduce the commands colleagues must enter.
- Improved the UI of the IC design environment used by the IC Realization Division.

Honors and Awards

Presidential Award, *2nd Semester 2014/2015 at National Taiwan University*   *Oct 2015*
- Top 5% semester GPA among all seniors in the Electrical Engineering Department.

Semi-finalist, *2015 Innovate Asia FPGA and SoC Design Contest*   *Jan 2015*
- Top 30 in Taiwan in an international digital consumer product design competition.

Gold Medal, *2nd NTU Presentation Contest*   *Dec 2014*
- Top 3 in a national competition where contestants present prepared speeches with PowerPoint.

Publication

Huang, K. C., Huang, Y. L., & Chien, S. Y. (2017). User Experience Enhancing Filter for a Webcam Based Human Computer Interaction. *GCCE'17* (pp. 26-27). Nagoya, Japan: IEEE.