

Derrek Chow

Human-Computer Interaction Researcher, Programmer, Designer

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Research Interests

Creativity with computers, tangible interaction, spatial computing, novel interfaces+interactions

Education

University of Waterloo, B.SE. Software Engineering, 2017 – 2022

(Graduate Level Course) “Advanced Topics in Human-Computer Interaction: Experimental Methods in HCI” taught by [Edward Lank](#), wrote [Mental Models of AI Agents in a Semantic Analysis Setting](#)

Research

[NTU HCI Lab](#), Undergraduate Research Assistant, Jan 2021 –

National Taiwan University, Department of Computer Science

Demonstrating new VR applications of ungrounded force feedback using air jet technology with [Mike Chen](#), and creating an interactive kinetic sculpture to explore functionality vs. aesthetics with [Lung-Pan Cheng](#)

[Human-Computer Interaction Lab](#), Undergraduate Research Assistant, Sept 2020 –

University of Waterloo, Cheriton School of Computer Science

Prototyping non-anthropomorphic forms of virtual assistants with [Daniel Vogel](#) and [Quentin Roy](#)

Work

[StackAdapt](#), Software Engineering Intern, Sept – Dec 2019

Collaborated with designers to develop and ship a billing system and payment management interface

[Desire2Learn](#), [D2L Labs](#), Software Developer Intern, Jan – Apr 2019

Ideated and developed several R&D web-based prototypes to explore the future of learning

[Tulip Retail](#), Software Developer Intern, May – Aug 2019

Architected and implemented a feature for customers to control their communication permissions

Skills

Programming Languages	Python, JavaScript, Java, C++, Ruby, Clojure, PHP
Web Development	React, Rails, Node, Backbone.js, Flask, jQuery, SQL, Cypher, HTML/CSS
Design + Visualization	Graphic + brand design , product design, Figma, Illustrator, Processing, Pts.js
Prototyping	Electronic + physical fabrication, Raspberry Pi, Arduino, Leap Motion
Misc	Research, ideation, concept development

Projects

<u>Computational Art</u>	Visual and audio explorations in art and technology
<u>Point2Speech</u>	Novel input device that speaks out loud text on a page when pointed to
<u>Automatic Cannon</u>	Self-aiming cannon that fires at moving targets
<u>Hack the Fridge</u>	Smart fridge that suggests recipes and tracks expired food
<u>Pinch Perfect</u>	Digital theremin (musical instrument) controlled by hand gestures
<u>Hungry.ai</u>	AI powered game of Hungry Hungry hippos
<u>UW Flow</u>	Course review platform with 10 mil. total page views and 30k+ monthly users
<u>From the Intercom</u>	A music + film blog and magazine for Asian-American artists

References

[Daniel Vogel](#), Associate Professor

University of Waterloo, Cheriton School of Computer Science

[Mike Chen](#), Professor

National Taiwan University, Department of Computer Science

[Quentin Roy](#), Postdoctoral Fellow

University of Waterloo, Cheriton School of Computer Science

[Lung-Pan Cheng](#), Assistant Professor

National Taiwan University, Department of Computer Science