

# Derrek Chow

Human-Computer Interaction Researcher, Programmer, Designer

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## Research Interests

Tangible interaction, natural user interfaces, creativity with computers, novel interfaces and interactions, spatial computing

## 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](#)

Course project: [Mental Models of AI Agents in a Semantic Analysis](#)

## Research

National Taiwan University, Department of Computer Science, Jan 2021 –

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

Demonstrating VR applications of ungrounded force feedback using air jet technology with [Mike Chen](#)

University of Waterloo, Cheriton School of Computer Science, Sept 2020 –

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

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	<u>Graphic + brand design</u> , 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>UW Flow</u>	Course review platform with 10 mil. total page views and 30k+ monthly users
<u>From the Intercom</u>	Graphic and brand design for a music blog and magazine
<u>Hungr.ai</u>	AI powered game of Hungry Hungry hippos
<u>Point2Speech</u>	Device that speaks out loud text on a page when pointed to
<u>Hack the Fridge</u>	Smart fridge that suggests recipes and tracks expired food
<u>Automatic Cannon</u>	Self-aiming cannon that fires at moving targets
<u>Pinch Perfect</u>	Digital theremin (musical instrument) controlled by hand gestures

## 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