

Bryan Wang

Research Scientist II · Adobe Research

Ph.D. in Computer Science · University of Toronto

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RESEARCH INTERESTS

Human-AI Interaction · Creativity Support Tools · Video & Audio Production · LLM Agents & UI Automation

EDUCATION

Ph.D. in Computer Science · University of Toronto · Advisor: Tovi Grossman 2024
Thesis: Human-AI Systems for Creating, Consuming, and Interacting with Digital Content

M.Sc. in Computer Science · University of Toronto · Advisor: Tovi Grossman 2020

B.Sc. in Computer Science · National Taiwan University 2018

EXPERIENCE

Adobe Research

Research Scientist II (Senior) Jun 2026 to Present
Research Scientist Sep 2024 to Jun 2026

Pioneering generative-AI creative tools end-to-end, from original research and 0→1 prototypes to production features in Adobe products. Currently leading R&D on generative video creation agents.

Research Intern · Meta Reality Labs - Research Summer 2023
Created LAVE, an LLM-powered video editing agent that plans, searches, and edits footage through natural conversation.

Student Researcher · Google Research Summer 2022
Among the first to show LLMs could enable conversational interaction with GUI through prompting alone, no task-specific training required.

Research Intern · Adobe Research Summer 2021, Winter 2022
Built ROPE, an NLP-driven tool that automatically condenses voice recordings into social-media-ready audio stories while preserving narrative flow.

Research Intern · Google Research Summer 2020, Winter 2021
Created a 110K-summary, 22K-screen multimodal dataset and trained vision-language models to automatically summarize mobile UIs.

SHIPPED PRODUCTS

Precision Flow · Adobe Firefly · Research Lead (0→1) 2026

A Firefly image editing feature that renders every edit as a continuous spectrum. Glide a slider from A to B and land anywhere in between.

Generate Soundtrack · Adobe Firefly · Contributor 2025

A Firefly audio tool that generates commercially-safe instrumental soundtracks from a text prompt or video. Music that fits your footage, automatically.

PUBLICATIONS

28 publications · 1,500+ citations · h-index 16 · See Google Scholar

Dramarrator: Object-Based Audio Editing for Audio Drama Production from Books *UIST 2026*

Karim Benharrak, Oriol Nieto, [Bryan Wang](#), Zeyu Jin, Amy Pavel

Sidekick: Designing Ambient Communication for Effective Multitasking with Computer Use Agents *UIST 2026*

Ruei-Che Chang, Wenqian Xu, Ding Li, [Bryan Wang](#), Anhong Guo

Vidmento: Creating Video Stories Through Context-Aware Expansion With Generative Video *CHI 2026*

Catherine Yeh, Anh Truong, Mira Dontcheva, [Bryan Wang](#)

VidTune: Creating Video Soundtracks with Generative Music and Contextual Thumbnails *CHI 2026*

Mina Huh, Ailie C. Fraser, Dingzeyu Li, Mira Dontcheva, [Bryan Wang](#)

Script2Screen: Supporting Dialogue Scriptwriting with Interactive Audiovisual Generation *IUI 2026*

Zhecheng Wang, Jiaju Ma, Eitan Grinspun, Tovi Grossman, [Bryan Wang](#)

MapStory: Prototyping Editable Map Animations with LLM Agents *UIST 2025*

Aditya Gunturu, Ben Pearman, Keiichi Ihara, Morteza Faraji, [Bryan Wang](#), Rubaiat Habib Kazi, Ryo Suzuki

SimTube: Generating Simulated Video Comments through Multimodal AI and User Personas *IUI 2025*

Yu-Kai Hung, Yun-Chien Huang, Ting-Yu Su, Yen-Ting Lin, Lung-Pan Cheng, [Bryan Wang*](#), Shao-Hua Sun* (*Equal advisory contribution.)

GazeNoter: Co-Piloted AR Note-Taking via Gaze Selection of LLM Suggestions to Match Users' Intentions *CHI 2025*

Hsin-Ruey Tsai, Shih-Kang Chiu, [Bryan Wang](#)

KnowledgeTrail: Generative Timeline for Exploration and Sensemaking of Historical Events and Knowledge Formation *arXiv 2025*

Sangho Suh, Rahul Hingorani, [Bryan Wang](#), Tovi Grossman

LAVE: LLM-Powered Agent Assistance and Language Augmentation for Video Editing *IUI 2024*

[Bryan Wang](#), Yuliang Li, Zhaoyang Lv, Haijun Xia, Yan Xu, Raj Sodhi

- SynthScribe: Deep Multimodal Tools for Synthesizer Sound Retrieval and Exploration** *IUI 2024*
Stephen Brade, [Bryan Wang](#), Mauricio Sousa, Gregory Lee Newsome, Sageev Oore, Tovi Grossman
Jazzki Human-Machine Creativity Award, First Place
- Flowy: Supporting UX Design Decisions Through AI-Driven Pattern Annotation in Multi-Screen User Flows** *arXiv 2024*
Yuwen Lu, Ziang Tong, Qinyi Zhao, Yewon Oh, [Bryan Wang](#), Toby Jia-Jun Li
- A Zero-Shot Language Agent for Computer Control with Structured Reflection** *EMNLP (Findings) 2023*
Tao Li, Gang Li, Zhiwei Deng, [Bryan Wang](#), Yang Li
- Democratizing Content Creation and Consumption through Human-AI Copilot Systems** *UIST Doctoral Consortium 2023*
[Bryan Wang](#)
- Promptify: Text-to-Image Generation through Interactive Prompt Exploration with Large Language Models** *UIST 2023*
Stephen Brade, [Bryan Wang](#), Mauricio Sousa, Sageev Oore, Tovi Grossman
- Enabling Conversational Interaction with Mobile UI using Large Language Models** *CHI 2023*
[Bryan Wang](#), Gang Li, Yang Li
- Stargazer: An Interactive Camera Robot for Capturing How-To Videos Based on Subtle Instructor Cues** *CHI 2023*
Jiannan Li, Mauricio Sousa, [Bryan Wang](#), Paula Akemi Aoyagui, Nicole Yu, Angela Yang, Ravin Balakrishnan, Anthony Tang, Tovi Grossman
- Creepy Assistant: Development and Validation of a Scale to Measure the Perceived Creepiness of Voice Assistants** *CHI 2023*
Rachel Phinnemore, Mohi Reza, Blaine Lewis, Karthik Mahadevan, [Bryan Wang](#), Michelle Annett, Daniel Wigdor
- Record Once, Post Everywhere: Automatic Shortening of Audio Stories for Social Media** *UIST 2022*
[Bryan Wang](#), Zeyu Jin, Gautham Mysore
- Screen2Words: Automatic Mobile UI Summarization with Multimodal Learning** *UIST 2021*
[Bryan Wang](#), Gang Li, Xin Zhou, Zhourong Chen, Tovi Grossman, Yang Li
- Soloist: Generating Mixed-Initiative Tutorials from Existing Guitar Instructional Videos Through Audio Processing** *CHI 2021*
[Bryan Wang](#), Meng Yu Yang, Tovi Grossman
- Alive: Interactive Visualization and Sonification of Neural Networks in Virtual Reality** *AIVR (Demo) 2021*
Zhuoyue Lyu, Jiannan Li, [Bryan Wang](#)
Best Presentation Award
- BlyncSync: Enabling Multimodal Smartwatch Gestures with Synchronous Touch and Blink** *CHI 2020*
[Bryan Wang](#), Tovi Grossman

- PerformanceNet: Score-to-Audio Music Generation with Multi-Band Convolutional Residual Network** AAAI 2019
 Bryan Wang, Yi-Hsuan Yang
- Demonstration of PerformanceNet: A Convolutional Neural Network Model for Score-to-Audio Music Generation** IJCAI (Demo) 2019
 Yu-Hua Chen, Bryan Wang, Yi-Hsuan Yang
- ActiveErgo: Automatic and Personalized Ergonomics Using Self-Actuating Furniture** CHI 2018
 Yu-Chian Wu, Te-Yen Wu, Paul Taele, Bryan Wang, Jun-You Liu, Pin-Sung Ku, Po-En Lai, Mike Y. Chen
- CircuitSense: Automatic Sensing of Physical Circuits and Generation of Virtual Circuits to Support Software Tools** UIST 2017
 Te-Yen Wu, Bryan Wang, Jiun-Yu Lee, Hao-Ping Shen, Yu-Chian Wu, Yu-An Chen, Pin-Sung Ku, Ming-Wei Hsu, Yu-Chih Lin, Mike Y. Chen
- CircuitStack: Supporting Rapid Prototyping and Evolution of Electronic Circuits** UIST 2016
 Chuan Wang, Hsuan-Ming Yeh, Bryan Wang, Te-Yen Wu, Hsin-Ruey Tsai, Rong-Hao Liang, Yi-Ping Hung, Mike Y. Chen
Best Talk Award

HONOURS & AWARDS

- Jazzki Human-Machine Creativity Award, First Place** · SynthScribe 2024
- Special Recognition for Outstanding Reviews** · CHI '22-'24, UIST '22-'24, '26 · 2022 to 2026
 12 recognitions
- Wolfond Scholarship** · University of Toronto · \$5,000 CAD 2023 to 2024
- DiDi Graduate Student Award in Computer Science** · University of Toronto · 2021 to 2023
 \$10,000 CAD, two years
- Snap Creative Challenge Award** · Snap Inc. 2022
- Apple AI/ML Fellowship Nominee** · University of Toronto · one of three at the school 2022
- Best Presentation Award** · IEEE AIVR 2021 · Alive 2021
- Best Talk Award** · ACM UIST 2016 · CircuitStack 2016
- James Dyson Award, World Finalist** · James Dyson Foundation 2016
- AI and CS Research Excellence Scholarship** · Appier Inc. 2017, 2018

MENTORING & ADVISING

INTERN SUPERVISION

Olivia Seow · PhD Student, Harvard University	Summer 2026
Yewon Kim · PhD Student, Carnegie Mellon University	Summer 2026
Naisha Agarwal · Incoming PhD Student, UC Berkeley	Summer 2026
Catherine Yeh · PhD Student, Harvard University	Summer 2025
Mina Huh · PhD Student, UC Berkeley	Summer 2025
Ruei-Che Chang · PhD Student, University of Michigan	Summer 2025
Karim Benharrak · PhD Student, UC Berkeley	Summer 2025

THESIS COMMITTEE

Noor Hammad · PhD Student, Carnegie Mellon University	2025-Present
Yuwen Lu · PhD Student, University of Notre Dame · <i>Now: Head of Research at Contra Labs</i>	Defended 2026

RESEARCH ADVISING

Zhecheng Wang · PhD Student, University of Toronto	2024-2025
Stephen Brade · MSc Student, University of Toronto · <i>Now: PhD Student at MIT</i>	2022-2024
Rachel Phinnemore · MSc Student, University of Toronto · <i>Now: TPM at Google</i>	2023

ACADEMIC SERVICE

Program Committee · ACM UIST	'23, '24, '25
Program Committee · ACM CHI	'25, '26
Program Committee · ACM IUI	'25, '26
Program Committee · ACM DIS	'25
Organizer · ICML Workshop on AI & HCI	'23

SELECTED PRESS

Adobe Brings Chat to Firefly AI Assistant Across Creative Cloud Apps · <i>Forbes</i>	April 2026
Adobe's new Firefly AI Assistant could forever change the way you use its apps · <i>Fast Company</i>	April 2026
New image editing features in Adobe Firefly get you from 'almost there' to 'exactly right' · <i>Adobe Blog</i>	April 2026
Vidmento: Filling the gaps in your video story with generative AI · <i>Adobe Research</i>	April 2026
When the Music Fits: VidTune Helps Video Creators Find the Right Soundtrack · <i>Adobe Research</i>	April 2026
Adobe's new AI audio tools can add soundtracks and voice-overs to videos · <i>The Verge</i>	Oct. 2025

Adobe's Firefly can now use AI to generate soundtracks, speech and video · <i>Engadget</i>	Oct. 2025
Tuning into Tomorrow: AI can help musicians compose and create new sounds. Is it just another music-making tool – or something else? · <i>University of Toronto Magazine</i>	April 2024
Revolutionizing Digital Creativity: LAVE's AI Merges with Video Editing for Novice-Friendly Innovation · <i>BNN Breaking</i>	Feb. 2024
Revolutionizing Video Editing: How LAVE and AI are Democratizing Creative Expression · <i>MarkTechPost</i>	Feb. 2024
When Sora's explosive video generation emerged, Meta began using an agent to automatically edit videos. (In Chinese) · <i>Heart of Machine</i>	Feb. 2024
Enabling conversational interaction on mobile with LLMs · <i>Google AI Blog</i>	May. 2023
This Artificial Intelligence (AI) Research Shows The Feasibility Of Enabling Conversational Interactions With Mobile UIs Using Large Language Models LLMs · <i>MarkTechPost</i>	Mar. 2023
Developed by the University of Toronto, Soloist turns YouTube musical instrument lesson videos into personalized instruction. (In Japanese) · <i>ITmedia</i>	Feb. 2021

SKILLS

RESEARCH AREAS	Human-AI Interaction · Creativity Support Tools · Video & Audio Production · LLM Agents & UI Automation
METHODS	Interactive system prototyping · Dataset curation & annotation · Model fine-tuning & evaluation · Technical writing & paper authorship
ENGINEERING	Python · TypeScript / React / Next.js / CSS · PyTorch · LLM tooling
LANGUAGES	English (fluent) · Mandarin Chinese (native)