

# Krithik Ranjan

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## EDUCATION

### University of Colorado Boulder, CO

AUG 2022 – MAY 2026

Ph.D. Creative Technology and Design, ATLAS Institute  
Advisors: Prof. Ellen Do and Prof. Michael Rivera

### Cornell University, NY

AUG 2018 – MAY 2022

B.Sc. Electrical and Computer Engineering, College of Engineering

## RESEARCH EXPERIENCE

### ACME Lab and Utility Research Lab, ATLAS Institute, CU Boulder

AUG 2018 – MAY 2022

Graduate Research Assistant. Advisor: Prof. Ellen Do, Prof. Michael L. Rivera

### Craft Tech Lab, CU Boulder

JUN 2024 – SEP 2024

Graduate Research Assistant. Advisor: Prof. Ann Eisenberg

### Hybrid Body Lab, Cornell University

FEB 2021 – MAY 2022

Undergraduate Research Assistant. Advisor: Prof. Cindy Hsin-Liu Kao

### Meta Design and Technology Lab, Cornell University

JAN 2021 – JAN 2022

Undergraduate Research Assistant. Advisor: Prof. Jay Yoon

### Batten Research Group, Cornell University

JUN 2020 – MAY 2021

Undergraduate Research Assistant. Advisor: Prof. Christopher Batten

## PUBLICATIONS

### Cartoonimator: A Paper-based Tangible Kit for Keyframe Animation

Krithik Ranjan, Peter Gyory, Seneca Howell, Therese Stewart, Michael L. Rivera, and Ellen Yi-Luen Do. In Tangible, Embedded, and Embodied Interaction (TEI) 2025. [DOI](#).

### Physical Computing with Paper Playground: Exploring a Multimodal Platform

Krithik Ranjan, Ann Eisenberg, Brett L. Fiedler, Jesse Greenberg, Taliesin L. Smith, Emily B. Moore. In Tangible, Embedded, and Embodied Interaction (TEI) 2025. [DOI](#).

### Tangible Interfaces for Computational Tinkering

Krithik Ranjan. In Tangible, Embedded, and Embodied Interaction (TEI) 2025. [DOI](#).

### DualStream: Spatially Sharing Selves and Surroundings using Mobile Devices and Augmented Reality

Rishi Vanukuru, Suibi Che-Chuan Weng, Krithik Ranjan, Torin Hopkins, Amy Banic, Mark D. Gross, Ellen Yi-Luen Do. In IEEE International Symposium on Mixed and Augmented Reality (ISMAR) 2023. [DOI](#).

### Cartoonimator: A Low-cost, Paper-based Animation Kit for Computational Thinking

Krithik Ranjan, Peter Gyory, Michael L. Rivera, and Ellen Yi-Luen Do. In Interaction Design and Children

(IDC) 2023. [DOI](#).

### **Directing Tangible Controllers with Computer Vision and Beholder**

Peter Gyory, Krithik Ranjan, Zhen Zhou Yong, Clement Zheng, and Ellen Yi-Luen Do. In SIGGRAPH Asia 2022 Emerging Technologies 2022. [DOI](#).

### **SkinKit: Construction Kit for On-Skin Interface Prototyping**

Pin-Sung Ku, Md. Tahmidul Islam Molla, Kunpeng Huang, Priya Kattappurath, Krithik Ranjan, and Hsin-Liu (Cindy) Kao. In Proceedings of ACM Interactive Mobile Wearable Ubiquitous Technologies (IMWUT) 2021. [DOI](#).

### **A Tensor Processing Framework for CPU-Manycore Heterogeneous Systems**

Lin Cheng, Peitian Pan, Zhongyuan Zhao, Krithik Ranjan, Jack Weber, Bandhav Veluri, Seyed Borna Ehsani et al. In IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD) 2021. [DOI](#).

#### WORK EXPERIENCE

##### **Qualcomm Technologies**

JUN 2021 – AUG 2021

Embedded Software Engineering Intern. San Diego, CA (remote).

##### **Cornell University Autonomous Underwater Vehicle**

OCT 2018 – MAY 2022

Electrical Subteam Lead. Ithaca, NY.

##### **Cornell University Sustainable Design**

JAN 2019 – MAY 2022

Electrical Subteam Lead. Ithaca, NY

#### TEACHING EXPERIENCE

##### **University of Colorado Boulder**

ATLS 2270 Computational Foundations II – Teaching Assistant

JAN 2024 – MAY 2024

ATLS 3300 Object – Teaching Assistant

JAN 2023 – MAY 2023

##### **Cornell University**

ECE 2400 Computer Systems Programming – Teaching Assistant

AUG 2020 – DEC 2020

ECE 2100 Circuits – Teaching Assistant

JAN 2020 – MAY 2020

MATH 1110 Calculus & MATH 1120 Calculus II – Teaching Assistant

AUG 2019 – MAY 2020

#### HONORS

Dr. Awtar and Teji Singh Graduate Fellowship, CU Boulder – \$20,000

2023

Tata Scholarship for Indian Students at Cornell University – 100% financial need

FALL 2018 – SPRING 2022

Dean's List, College of Engineering, Cornell University

FALL 2018 – SPRING 2022

#### MENTORING

Lena Rakkah, Boulder Valley School District

AUG 2023 – DEC 2024

Seneca Howell, University of Colorado Boulder

JUN 2024 – AUG 2024

Therese Stewart, Community College of Denver

JUN 2024 – AUG 2024

Ashley Stafford, University of Colorado Boulder

JUN 2024 – AUG 2024

Jack Good, Cornell University

JUN 2024 – AUG 2024

Sergio Bustamente, University of Florida

JUN 2023 – AUG 2023