

Krithik Ranjan

Boulder, CO | krithik.ranjan@gmail.com | (607) 280-3873 | linkedin.com/in/krithik-ranjan

EDUCATION

- University of Colorado Boulder, CO** AUG 2022 - PRESENT
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, ATLAS Institute, CU Boulder** AUG 2022 - PRESENT
Graduate Research Assistant
Advisor: Prof. Ellen Do; www.colorado.edu/atlas/acme-lab

Researching affordable tangible programming approaches for effective computing education in communities with limited access to computers.
- Hybrid Body Lab, Cornell University** FEB 2021 - MAY 2022
Undergraduate Research Assistant
Advisor: Prof. Cindy Kao; www.hybridbody.human.cornell.edu/

Supported the development of construction toolkits for on-skin interfaces.
- Meta Design and Technology Lab, Cornell University** JAN 2021 - JAN 2022
Undergraduate Research Assistant
Advisor: Prof. Jay Yoon; www.mdtl.human.cornell.edu/

Developed a custom smart speaker to research the impact of UX writing style in voice-based AI assistants.
- Batten Research Group, Cornell University** JUN 2020 - MAY 2021
Undergraduate Research Assistant
Advisor: Prof. Christopher Batten; www.csl.cornell.edu/~cbatten/

Developed, optimized, and evaluated operations on a novel manycore computer architecture.

PUBLICATIONS

Gyory, Peter, **Krithik Ranjan**, Zhen Zhou Yong, Clement Zheng, and Ellen Yi-Luen Do. "Directing Tangible Controllers with Computer Vision and Beholder." In SIGGRAPH Asia 2022 Emerging Technologies, pp. 1-2. 2022.

Ku, Pin-Sung, Md Tahmidul Islam Molla, Kunpeng Huang, Priya Kattappurath, **Krithik Ranjan**, and Hsin-Liu Cindy Kao. "SkinKit: Construction Kit for On-Skin Interface Prototyping." Proceedings of the

ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies 5, no. 4 (2021): 1-23.

Cheng, Lin, Peitian Pan, Zhongyuan Zhao, **Krithik Ranjan**, Jack Weber, Bandhav Veluri, Seyed Borna Ehsani et al. "A Tensor Processing Framework for CPU-Manycore Heterogeneous Systems." IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems 41, no. 6 (2021): 1620-1635.

TEACHING EXPERIENCE

ATLAS Institute, University of Colorado Boulder, CO

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 I & MATH 1120 Calculus II — Course Assistant AUG 2019 - MAY 2020

WORK EXPERIENCE

Qualcomm Technologies, QCT-SW Team

Embedded Software Engineering Intern JUN 2021 - AUG 2021
www.qualcomm.com

Cornell University Autonomous Underwater Vehicle

Electrical Subteam Lead OCT 2018 - MAY 2022
cuauv.org

Cornell University Sustainable Design, Sustainable Mobility

Electrical Subteam Lead JAN 2019 - MAY 2020
cusd.cornell.edu/projects/susmob/

HONORS

Dean's List, College of Engineering, Cornell University — Earned all semesters

Tata Scholarship for Indian Students at Cornell University — Awarded for the complete undergraduate program

Tau Beta Pi, NY Delta Chapter at Cornell University — Inducted into the National Honors Engineering Society for being in the top 12.5% of the Junior class in the College of Engineering; elected as the Professional Development Chair of the society.

SKILLS

Programming in C, C++, Python, Javascript, Rust | Computer Vision Techniques | Microcontroller and Embedded Firmware | PCB Schematic and Layout Design with KiCad | Prototyping with Arduino, Raspberry Pi and other embedded systems | Hardware Modeling with PyMTL, Verilog HDL 3D Modeling with Fusion 360 | 3D Printing and Laser Cutting