

Vikram Kamath Cannanure

HCI AND ICTD RESEARCHER · PROGRAMMER

✉ kmarkiv@cmu.edu · 🏠 kmarkiv.com · 📱 kmarkiv

Education

Carnegie Mellon University

PhD, HUMAN-COMPUTER INTERACTION

Pittsburgh, USA

2017–Aug 2023

- Advisors: Prof. Tim Brown and Prof. Amy Ogan
- Committee: Prof. Chinmay Kulkarni, Prof. Mayank Goel, and Prof. Kentaro Toyama (University of Michigan)
- Thesis: DIA: Supporting Teacher Professional Development in Low Infrastructure Settings
- Research involved field work and technology deployment in rural Côte d'Ivoire

Carnegie Mellon University

MASTERS, HUMAN-COMPUTER INTERACTION

Pittsburgh, USA

2017–2021

Carnegie Mellon University

MASTERS, EDUCATIONAL TECHNOLOGY AND APPLIED LEARNING SCIENCE

Pittsburgh, USA

2014–2015

National Institute of Technology Karnataka

BACHELOR OF TECHNOLOGY, MECHANICAL ENGINEERING

Karnataka, India

2007–2011

Research Experience

Saarland University

POSTDOCTORAL FELLOW

Saarbrücken, Germany

October 2023 – present

- Advisor: Prof. Ingmar Weber
- Supervising PhD students on projects related to HCI4D and NLP
- Exploring the role of Generative AI for various projects in the Global South

Carnegie Mellon University, Africa

VISITING RESEARCHER

Kigali, Rwanda

Summer 2018, Summer 2019, Fall 2020

- Host: Prof. Tim Brown
- Project: Design of a Phone Call-Based Health Information System
- Conducted participatory research with rural women and prototyped an IVR system in rural Rwanda

United Nations University Computing and Society

RESEARCH INTERN

Macau, SAR, China

July 2017 – Sept 2017

- Advisor: Dr. Mamello Thinayne
- Interned at the Small data lab to learn about ICTD
- Conducted participatory design with a local NGO
- Built a mobile app to report and monitor homelessness in Macau

Carnegie Mellon University

SENIOR WEB DEVELOPER

Pittsburgh, USA

July 2015 – June 2017

- Advisor: Prof. Geoff Gordon
- Built and managed educational technology to support online learning
- Prototyping low cost video recording system for teaching courses

Carnegie Mellon University

RESEARCH ASSISTANT

Pittsburgh, USA

Aug. 2015 - June. 2017

- Advisor: Prof. Jen Mankoff
- Longitudinal eating detection: deployed and evaluated the system to 12 users in the field
- Twist n Knock: A one-handed Gesture for smart watches: publication at GI 2016 [C1]
- EDigs: Built and maintained the APIs for apartment hunting website in Pittsburgh [C3]

Awards

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| 2019 | PhD Fellowship , Center for Machine Learning and Health - 100,000 USD | Pittsburgh PA |
| 2019 | Best Paper Award , ACM COMPASS Paper | Accra, Ghana |
| 2019 | Poster Spotlight , ACM COMPASS Poster | Accra, Ghana |

Selected Publications

For full list see <https://scholar.google.com/citations?user=HVuuUzwAAAAJ>

- [9] **Cannanure V.K.**, Ávila E., Ngoon T., Adjil Y., Wolf S., Jasinska K., Brown T., Ogan A. "We dream of climbing the ladder, for getting there, we have to do our job better": Designing for Teacher Aspirations in rural Côte d'Ivoire. ACM COMPASS 2022, Seattle, USA.
- [8] **Cannanure V.K.**, Brown T., Ogan A. DIA: A Human AI Hybrid Chatbot for Low Resource Contexts. ICTD 2020, Guayaquil, Ecuador
- [7] **Cannanure V.K.**, Souvenir J., Adjil Y., Apke H., Jasinska K., Brown T., Ogan A. "I'm fine where I am, but I want to do more": Exploring Teacher Aspirations in Rural Cote D'Ivoire. ACM COMPASS 2020, Guayaquil, Ecuador
- [6] Madaio, M., Yarzebinski, E., **Cannanure V.K.**, Zinszer B., Seri, A., Tanoh, F., Hannon-Cropp, J., Cassell, J., Jasinska, K., Ogan, A. Collective Support and Independent Learning with a Voice-Based Literacy Technology in Rural Communities. . CHI '20, Apr 2020, Hawaii, USA
- [5] Madaio, M., **Cannanure V.K.**, Yarzebinski, E., Zasacky, S., Tanoh, F., Hannon-Cropp, J., Cassell, J., Jasinska, K., Ogan, A. "You Give a Little of Yourself": Family Support for Children's Use of an IVR Literacy System.. COMPASS '19, Jun 2019, Accra, Ghana
- [4] **Cannanure V.K.**, Brown T, RASP-IVR: A Low Cost Interactive Voice Response System. AfriCHI '18, December 2018, Windhoek, Namibia.
- [3] Onafuwa, D., Early, K., Vyas N, **Cannanure V.K.**, Mankoff J. Understanding the Information Needs of Prospective Tenants. ACM SIGCAS Conference on Computing and Sustainable Societies (COMPASS 2018), June 2018, San Francisco, USA.
- [2] Bhat, K*, Thinayane M*, Goldkind L., **Cannanure V.K.** Critical Participatory Design: Reflections on engagement and empowerment in a case of a Community Based Organization. Participatory Design Conference (PDC 2018), August 2018, Hasselt and Genk, Belgium.
- [1] **Cannanure V.K.**, Chen, X., Mankoff J., Twist and Knock A One-Handed Gesture for Smart Watches. Proceedings of the 42nd Graphics Interface Conference (GI 2016)

Teaching Experience

Programming Usable Interfaces (05-430/05630)

TEACHING ASSISTANT. INSTRUCTOR: SCOTT HUDSON

Spring 2022

Carnegie Mellon University

User-Centered Research & Evaluation (05-410/05-610)

TEACHING ASSISTANT. INSTRUCTOR: RAELEN MUSURACA

Spring 2021

Carnegie Mellon University

Professional Service

2023	Lead Organizer , HCI Across Borders (HCIB) workshop at CHI	Hamburg, Germany
2022	Lead Organizer , HCI Across Borders (HCIB) workshop at CHI	New Orleans, USA
2021	Lead Organizer , HCI Across Borders (HCIB) workshop at CHI	Yokohama, Japan
2020	Organizer , HCI Across Borders (HCIB) symposium at CHI	Hawaii, USA
2019	Organizer , HCI Across Borders (HCIB) symposium at CHI	Glasgow, UK
2019	Organizer , Young Researchers reception ICTDx	Ahmedabad
2020-22	SIGCHI Development Fund , Executive Committee	
2020-	AC , CHI 22 (extended abstract), CHI 21 (extended abstract), CHI 20 (extended abstract)	
2018-	Reviewer , ACM COMPASS 2021, CSCW 2021, CHI 2021, CHI 21 (case studies), CSCW 20, CHI 20 (case studies), CHI 19, HCIB 2019, DIS 18 (WiP), PDC 18(Notes)	

Mentoring

PhD

Hamayoon Behmanush: Saarland University, PhD : *Supporting Afghan women learn programming*

Masters

Prithika Acharya: CMU Pittsburgh, METALS 2022: *Teacher Training Project in Ivory Coast*

Aastha Patel: CMU Pittsburgh, METALS 2022: *Teacher Training Project in Ivory Coast*

Egide Kamuzinzi: CMU Rwanda, MSIT 2021: *Teacher Training Project in Ivory Coast*

Baptiste Moreau-Pernet: CMU Pittsburgh, METALS 2021: *Teacher Training Project in Ivory Coast*

Saumya Sharma: CMU Pittsburgh, MSIPM 2020: *Simple Health Information System*

Lucie Uwimpaye: CMU Africa, MSIT 2021: *Simple Health Information System*

Eloísa Ávila: CMU Pittsburgh, MSPPM 2021: *Teacher Training Project in Ivory Coast*

Sheila Mbadí: CMU Africa, MSIT 2021: *Simple Health Information System*

Patrick Manirakiza: CMU Africa, MSECE 2019: *MnE system for Rwanda Women's Network*

Solange Iyubu: CMU Africa, MSECE 2019: *MnE system for Rwanda Women's Network*

Sabin Sheja: CMU Africa, MSECE 2019: *MnE system for Rwanda Women's Network*

Justin Bigwi: CMU Africa, MSECE 2019: *Design of a Phone Call-Based Health Information System*

Gloria Umutesi: CMU Africa, MSECE 2020: *Design of a Phone Call-Based Health Information System*

Jocelyne Mukamisha: CMU Africa, MSIT 2020: *Design of a Phone Call-Based Health Information System*

Justin Souvenir Niweteto: CMU Africa, MSIT 2020: *Design of a Phone Call-Based Health Information System*

Fraterne Kagame: CMU Africa, MSIT 2020: *Design of a Phone Call-Based Health Information System*

Huguette Ingenere: CMU Africa, MSIT 2020: *French Interview Transcription for teachers in Cote d'Ivoire*

Marie Claudine Ingenere: CMU Africa, MSIT 2020: *French Interview Transcription for teachers in Cote d'Ivoire*

Nebiyu Yismaw: CMU Africa, MSECE 2018: *Digital and Voice based Systems to support GBV*

Fabiola Uwashema: CMU Africa, MSIT 2018: *Digital and Voice based Systems to support GBV*

Undergraduate

Lena Armstrong: University of Pennsylvania, Summer REU: *Teacher Training Project in Ivory Coast*

Maya Greenholt: CMU Pittsburgh, Cognitive Science: *Teacher Training Project in Ivory Coast*

Skills

Programming Python, PHP, HTML/CSS, JavaScript, Android, Arduino, iOS

Technologies Pandas, Scikit, Weka, NumPy, AngularJS, Three.js, Bootstrap, MySQL, MongoDB, Redis, WebSockets

Coursework Applied Fabrication, Applied Machine Learning, Data Pipeline, Gadgets Activity and Recognition in HCI, Education Goals, E-Learning Design Principles, Game Design Studio, Design of Educational Games

Selected Press

The Next Web *TeliportMe introduces 3D effects to its 360-degree panoramic app for Android*

Techcrunch *Test Flighting: Applover Launches Free, Crowdsourced Testing Platform for Android Apps*

Robert Scoble *Developers: crowd-source your testing of Android phones*

CMU *A new online resource from Carnegie Mellon University seeks to help people find the perfect rental*

HCII *EDigs Helps Apartment Hunters Find the Perfect Rental*

TheBetterIndia *How a National Level Cyclist Is Fighting Both Spinal Injury & Poverty with Inspiring Confidence*

Milaap Blog *Getting Back to Cycling: A National Medalist's Dream*

Professional Experience

TeliportMe Inc: Indian startup

Karnataka, IN

WEB ARCHITECT

Jul 2011- Aug 2014

- Engineered APIs for Android, iOS, Web and Google Glass
- Scaled back-end to handle 4 million users and manage 100K locations
- Designed 3D viewer on par with Google street view
- Managed 10 Ubuntu machines with MySQL and Redis replication

Other

- **Philanthropy** I have raised over \$20,000 for charity for various causes in India
- **Android** I have deployed 3 apps to the app store and have around 10,000 active users
- **Web** I have deployed over 20 websites to production. My best project has reached over 4 million users.
- **Teaching** I teach children a second language(Kannada) at the S.V. Temple in Pittsburgh
- **Swimming** I swam 10 miles from Elephanta Caves to Gateway of India to raise money for acid attack victims