

Vikram Kamath Cannanure

HCI AND ICTD RESEARCHER · PROGRAMMER

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Education

Carnegie Mellon University

PhD, HUMAN COMPUTER INTERACTION

- 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

Pittsburgh, USA

2017–2023 (expected)

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

Awards

2019 **PhD Fellowship**, Center for Machine Learning and Health

Pittsburgh PA

2019 **Best Paper Award**, ACM COMPASS Paper

Accra, Ghana

2019 **Poster Spotlight**, ACM COMPASS Poster

Accra, Ghana

Research Experience

United Nations University Computing and Society

RESEARCH INTERN

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

Macau, SAR, China

July 2017 – Sept 2017

Carnegie Mellon University

SENIOR WEB DEVELOPER

- Advisor: Prof. Geoff Gordon
- Building and maintaining Educational Technology to improve online learning
- Prototyping low cost video recording system for teaching courses

Pittsburgh, USA

July 2015 – June 2017

Carnegie Mellon University

RESEARCH ASSISTANT

- Advisor: Prof. Jen Mankoff
- Longitudinal Eating Detection: Deployed and evaluated the system to 12 users in the field. CoAdvisor: Prof. Edison Thomaz
- Twist n Knock: A One-Handed Gesture for smart watches: publication at GI 2016
- EDigs: Built and maintained the APIs for apartment hunting website in Pittsburgh.

Pittsburgh, USA

Aug. 2015 - June. 2017

Professional Experience

TeliportMe Inc: Indian startup

WEB ARCHITECT

- 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

Karnataka, IN

Jul 2011- Aug 2014

Publications

[23] **Cannanure V.K.**, Ávila E., Ngoon T., Adjij 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, (to appear)

- [22] **Cannanure V.K.**, Gamage D. , Wong-Villacres, M., Sturm C., Kumar, N, *Workshop: Decolonizing HCI Across Borders.* CHI ’20, Apr 2021, Yokohama, Japan.
- [21] **Cannanure V.K.**, Bigwi. J, Umutesi. G, Mukamisha J.,Souvenir J., Ogan A, Brown T. *Designing a simple health information system for Women in Rwanda.* From Needs to Strengths: Operationalizing an Assets-Based Design of Technology: CSCW Workshop 2020,
- [20] **Cannanure V.K.**, Brown T., Ogan A. *DIA: A Human AI Hybrid Chatbot for Low Resource Contexts.* ICTD 2020, Guayaquil, Ecuador
- [19] **Cannanure V.K.**, Souvenir J., Adjii 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
- [18] Ávila E., Greenholt M. , Adjii Y., **Cannanure V.K.**, Brown T., Ogan A. *Designing a Human Centred Chatbot to Mentor Teachers in Developing Contexts:.* AI and Social Good Symposium CMU, Pittsburgh, USA
- [17] Ávila E., Greenholt M. , Adjii Y., **Cannanure V.K.**, Brown T., Ogan A. *Designing a Human Centred Chatbot to Mentor Teachers in Developing Contexts:.* HCI Across Borders and Sustainable Development Goals: HCIXB CHI Workshop ’20, Apr 2020, Hawaii, USA
- [16] Kumar, N, **Cannanure V.K.**, Gamage D. , Prabhakar A., Sturm C. *Workshop: HCI Across Borders and Sustainable Development Goals.* CHI ’20, Apr 2020, Hawaii, USA
- [15] 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
- [14] **Cannanure V.K.**, Madaio, M., Yarzebinski, E., Ogan, A, Brown T. *Using Graphical Models to Understand Usage of an Educational Interactive Voice Response System.* COMPASS ’19, Jun 2019, Accra, Ghana [Poster]
- [13] 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
- [12] **Cannanure V.K.** *Phone Based Systems to Support Maternal Mental Health in Rwanda.* ICTDX ’19 Doctoral consortium, Janurary 2019, Ahmedabad, India.
- [11] **Cannanure V.K.**, Bigwi. J, Umuziga P, Gishoma D., Hynie M., Brown T. *Mobile Screening Tool for Educating Caregivers about Maternal Mental Health in Rwanda.* ICTDX ’19, Janurary 2019, Ahmedabad, India. [Demo]
- [10] **Cannanure V.K.**, Brown T, *RASP-IVR: A Low Cost Interactive Voice Response System.* AfriCHI ’18, December 2018, Windhoek, Namibia.
- [9] **Cannanure V.K.**, Nagashima T., Gordon G., Brown T. *QnA: a low-cost system for developing interactive OER in computer science* OpenEd 18, Niagra falls, USA [Demo]
- [8] **Cannanure V.K.**, Brown T, *Voice Based Social Network for Maternal Mental Health Awareness in Rwanda.* HCI Across Borders Workshop (CHI 2018), Montreal, Canada.
- [7] 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.
- [6] 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.
- [5] **Cannanure V.K.**, Gordon G. *TelKart and QnA: An Open Teaching System for Computer Science Courses.* Open Education Global Conference 2017, (OEC 2017), Cape Town South Africa [Poster]

- [4] **Cannanure V.K.**, Mankoff J., *Watch-Ya-Doin*. 2nd Integrative Conference on Technology, Social Media, and Behavioral Health 2017, November 2016, Pittsburgh PA [Poster]
- [3] **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)
- [2] **Cannanure V.K.**, Ramaswamy N, Karanth N, Desai V, Kulkarni S.M., *"Development of an Automated Handwriting Analysis System"*. ARPN Journal of Engineering and Applied Sciences vol 6. No. 9, Sept 2011
- [1] Ramaswamy N, **Cannanure V.K.**, Karanth N, Desai V, Kulkarni S.M. *The Effect of Deviation in Nozzle Diameter on the Pressure Loss Coefficients of Diffuser in a Valveless Micropump*. International Journal of Electronics and Computers, published by International Science Press, Vol. 3, No. 1 Jan.-June 2011

Professional Service

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

Mentoring

Masters

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, MSIIPM 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 Mbadi: 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	Scipy, 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*

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