# **Malay Dhamelia**

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## PERSONAL DETAILS

Birth 19 November, 1992 Phone +91 8291 339 631

Mail malaydhameliair@gmail.com

# **EDUCATION**

PhD Ludology

IDC School of Design, IIT Bombay, India

Focus on game design, ludic interactions, and developing theory of fun

#### M.Des Interaction Design

2016-2018

2019-

IDC School of Design, IIT Bombay, India

Focused on research methods, tangible interactions, art installations, and behaviour design

#### **B.Tech Electrical Engineering**

2010-2014

Sardar Vallabhbhai National Institute of Technology, India Focused on embedded electronics and power electronics

#### WORK EXPERIENCE

#### Design Researcher

2018-2019

Behavioral and Business Sciences (BBS), Tata Research, Pune

As a part of Service and systems design team under BBS research area, my core responsibilities were two fold: 1) as a researcher to plan studies, review literature, and generate design insights. 2) Design, architect, and develop computer aided tools for conducting design research in qualitative and quantitative approaches

#### Teaching Assistant

2016 - 2018

Prof. Ravi Poovaiah, IDC School of Design

As a part of core team, developed two interactive installations exhibited at the National Gallery of Modern Art (NGMA), Mumbai

#### IBM-Extreme Blue Intern

May'17-July'17

Mr. Gautam Bhat, GTS Labs-IBM

I researched the UX part of cognitive migration advisor project, designed and developed interface for ML based advisor, designed the algorithm, and published research

#### Interaction design intern

Oct.'15-April'16

Allen Shaw, "If, the art cafe"

I was responsible for installations for corporate clients, website design, and creative programmer

#### Prototyper

Dec.'14-Feb.'15

Jayso Labs, Freelancer

- Conducted workshops on electronics and prototyping with Intel Education
- Prototyped Air-Quality monitoring systems for Oizom-environmenal monitoring

## **KEY PROJECTS**

#### Interventions to raise awareness about noise pollution

Design Project, Prof. Girish Dalvi, IDC School of Design

The project attempts to encourage pro-environmental and pro-social behaviour towards sound generation activity. The designed artefacts take behavioral and critical approach to tackle the issue of noise pollution caused by open celebrations.

#### Cultural Domain Analysis for Soundscape Assessment

Research Project, Prof. Girish Dalvi, IDC School of Design

The research involves a novel methodology to assess soundscapes without likert scale and generate richer insights. Explored qualitative research and analysis methods.

#### Installation design and development for NGMA

Scholarship responsibility, Prof. Ravi Poovaiah, IDC School of Design

The project involved display of interactive installations for educating children about science, technology, culture, and nature. Worked with a team of design professionals to design and develop the installations. Collectively overcame structural and technical challenges.

#### Design interventions for changing hand washing behaviour

Design Project, Prof. Girish Dalvi, IDC School of Design

The project attempts to improve the importance of hand hygiene among residents of lower sub-urban and rural regions. Interventions were designed through a theory driven and rationalist approach based on behavioural theories. Explored various methods of evaluation.

# Design/Development of an ML based migration assistant |

Intern Project, GTS Lab-IBM

This project aimed at facilitating migration of server loads from/to legacy systems and cloud architecture. This complex process was simplified by an assistant that suggests optimal strategy for migration. The design solution included an application, and an algorithm. It was design and developed along with two interns. Used angular JS to deploy an iOS application.

#### Prototyping of Air quality Data Collection Unit

Jayso Labs for Oizom

To monitor indoor and outdoor air quality, a prototype with six different air quality sensors was developed. Challenges including automatic calibration, and research about optimal sensor choices were successfully overcome.

#### BCI for control of domestic appliances

Self Initiated

Interfacing home automation with Brain Computer Interface was not only fascinating for me, but also useful to understand human computer interaction. The project was developed with Mohit Vora of VVP Engineering college, Rajkot. The idea received fair amount of acceptance as a technology. Developed programming skills to achieve the fascination.

#### SKILLS

Qualitative data collection methods Qualitative data analysis methods

Quantitative data analysis, Experiment Design

Writing research papers

Design
Skills

Concept generation and evaluation, Prototyping,
Information Architecture, Usability Testing

Softwares Microsoft Excel, R, SPSS, Adobe Illustrator, Photoshop, InDesign,

and Flash,

LATEX, 123D Make, Sketchup, Inkscape, Blender, Unity3D,

Scripting

awareness

 $language \hspace{1cm} {\rm C}\#, \, {\rm Javascript}$ 

Framework awareness

Processing, Arduino, AngularJS, R, WPF, Unity,

Emotiv (now, Xavier) SDK, Kinect SDK

Fabrication

Tools Laser cutting, 3D printing, Vinyl Etching, Circuit Milling

awareness

Languages Gujarati (mother tongue)

English (fluent) Hindi (fluent)

Persian (beginner — reading)

# PUBLICATIONS AND CONFERENCE PARTICIPATIONS

ICoRD 2019, Bangalore

Full paper presentation

Presented "Cultural Domain Analysis for Soundscape Assessment: A Qualitative Approach to Soundscape Assessment"

SeGAH 2018, Vienna

Full paper presentation

Presented "NudgeEntrance: Domestic Intervention to Change Hand Washing Behaviour"

Interact 2017, Mumbai

Student Volunteer-Field trip co-ordinator

Participated in planning and recruited users for following field trips

- 1. Understanding The Informal Support Networks Of Older Adults in India
- 2. Modelling Less-literate User's Choices of Smartphone Authentication Modes
- 3. Understanding Early Technology Adoption by the Emergent Older Adults in Dharavi

CCEM 2017, Bangalore

Poster presentation

Presented a poster "Deconvolving Migration Methodology via detailed assessment and Cognitive Learning"

**IndiaHCI** 

2016, Mumbai

Student Volunteer

#### **NASSCOM India Leadership Forum**

2015, Mumbai

Intel Education presenter

Presented the mentored childrens' project from 'Intel Ideathon' in the Tech Lounge

Hill Hacks 2015, Dharamsala

Assisted in the documentation of Ecological Vernacular Architecture of Didi Contractor

#### MIT Medialab Design Innovation Workshop

2015, Gandhinagar

Selected for 'Synchronous tools' track. Conceptualised, designed and developed a prototype of 'Pee-race'- Multi-user interactive urinal for public spaces.

MakerFest 2014, Ahmedabad

Panelist

Presented a talk on BCI technology - current scenario, application, and scopes

ICMRP 2014, Ahmedabad

Full Paper Presentation

Presented "Load and Audio Visual Control using Brain Computer Interfaces"

# **AREAS OF INTEREST**

Games Design, Play design, Ludic Interactions, Experiment design, Behaviour design, Installations, Media Arts, Interaction Techniques, Art technologies

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