Portfolio

### **Mehul Agrawal**

Gender: Male; DOB: 9th April 1992

#### **Educational Qualifications:**

Cumulative Performance Index (Undergraduate): 8.16/10

Class 12th (CBSE 2010): 90.4% Class 10th (CBSE 2008): 89.4%

#### **Areas of Interest:**

User Experience Design, Tangible User Interface, Human Computer Interaction, Design for Education, Design Thinking

#### **Work Experiences:**

User Experience Intern: e-Media Lab, Group T – Leuven Engineering College, Leuven, Belgium

Mentor: Prof. Luc Geurts, Group T - Leuven Engineering College

**Duration:** May'13 - July'13

**Project Domain:** User Experience Design, Tangible Interaction, Soft User Interface and Gesture Identification **Brief:** Employed User Centered Methodology to conceptualize and prototype a user-friendly product based on

Skweezee technology.

Summer Training: Maruti Suzuki, Gurgaon

Mentors: Mr. Tarun Thakur Duration: May'12 - July'12

Project Domains: Assembly Line Study and Interaction Design

Brief: It aimed at easing the task of Vehicle Inspector at Final Line by reminding them about the details (like

features of the model) of vehicles arriving at station.

#### **Publications:**

Mehul Agrawal, Vero Vanden Abeele, Karen Vanderlocck and Luc Geurts. "Skweezee-mote: A case-study of a gesture-based tangible product design for a television remote control", in *International Conference on Research into Design' 15 (ICORD 2015), Bangalore, India*, 2015.

Category: Long Paper

Mehul Agrawal, Minal Jain, Vikas Luthra, Ashok Thariyan. & Keyur Sorathia. "ChemicAble: Tangible Interaction Approach for learning Chemical Bonding", in the proceedings of 11th Asia Pacific Conference on Computer Human Interaction (APCHI 2015), Bangalore, India, 2013.

Category: Short Paper

Mehul Agarwal, Himanshu Bansal & Keyur Sorathia, "Incorporating Collaboration to Foster Voluntary Teaching", in workshop on Intelligent User interfaces for Developing Regions (IUIDR), International Conference on Intelligent User Interfaces (IUI 2013), CA, USA, 2013.

Category: Full-Paper

Abhinav Krishna, Himanshu Bansal, Mannu Amrit, Mehul Agrawal and Minal Jain. "Threading Centric Approach Towards Email Client", in OzCHI 2013, Adelaide, Australia.

Category: Student Design Challenge

#### **Projects:**

Exploration of feedback in shape changing tangible user interfaces - Bachelor Thesis Project (July'13 - June'14)

Supervisor: Asst. Prof. Keyur Sorathia, Embedded Interaction Lab, Department of Design, IIT Guwahati.

**Keywords:** Tangible User Interface, Research Experiment Design

**Brief:** Exploring the area of tangible user interfaces and shape changing interfaces and studying how their convergence can enhance user experience in terms of providing active feedback to the users.

Houdini - Vertical Simulation Physical Actuation (21-25 Jan'14)

Workshop: Design Innovation Workshop 2014 by MIT Media Labs- Magical Interfaces track.

Keywords: Mixed Reality, Interactive Installation, Physical Computing

**Brief:** Houdini is a project on lines of Mixed/ Hybrid Reality that aims to conjunct the control of gaming/ animation/ screen experience with Physical gestures by the user given without any expensive Hardware Interface. The control and graphics of the game change from Physical space to Virtual and Vice Versa depending on the dynamics of game progress.

# ChemicAble: Tangible Interaction Approach for Teaching Chemical Bonding – Tangible Interface Course Project (Jan'13 – April'13)

Supervisor: Asst. Prof. Keyur Sorathia, Embedded Interaction Lab, Department of Design, IIT Guwahati.

**Keywords:** Tangible User Interface, Design intervention in Education, Collaborative Learning

**Brief:** Designed and developed an exercise tool to facilitate understanding of ionic bonding among school students (grade 8 to 10) by promoting exploration and fun.

#### INKING: Reimagining the note-taking and diagramming application for mobile devices (Feb'14-Present)

**Supervisor:** Microsoft IDC, India

**Keywords:** Pen-computing, User research

**Brief:** Design a tablet application to enhance the Inking experience for tablets and foster improved content

creation and management.

## **Let's Teach: Incorporating Collaboration to Foster Voluntary Teaching – Interaction Design Course Project** (July'12 – Nov'12)

Supervisor: Asst. Prof. Keyur Sorathia, Embedded Interaction Lab, Department of Design, IIT Guwahati.

Keywords: Design intervention in Education, Voluntary Teaching, Collaborative Teaching

Brief: Following user centric approach, we proposed collaboration as a potential solution to foster voluntary

teaching. A web based platform was designed to support collaboration among voluntary teachers.

### Cabage: Translating cab-sharing to information system – Design Project I (July'12 – Nov'12)

**Supervisor:** Asst. Prof. Manoj Majhi, Department of Design, IIT Guwahati.

**Keywords:** User Centered Design, Information System, Cab-sharing

**Brief:** Translating the physical world experiences of cab-sharing in web environment using a user centered design approach.

#### Skills:

**Design Skills:** Rapid Prototyping, Questionnaire Design, Competitive Analysis, Persona and Scenario Creation, Mind Maps, Card Sorting, User Interface Design, Contextual Inquiry, Wire-frames, Information Architecture, Heuristic Evaluation, Usability Evaluation, Experimentation Design and Quantitative Analysis

**Software:** Adobe Photoshop, Adobe Illustrator, Adobe Dreamweaver, Adobe Flash, Microsoft Office, Balsamiq Mockups, Nvivo, Processing, Arduino

Programming: C, C++, HTML, CSS, Python, PHP, VBScript, Processing and Android XML

**Operating Systems:** Windows and Mac OS

#### **Achievements and Co-curricular:**

- 3<sup>rd</sup> OzCHI 24, The Student Design Challenge, OzCHI 2013, Adelaide, Australia.
- 1<sup>st</sup> Movie making in Manthan'11, Inter hostel cultural festival, IIT Guwahati.
- 1<sup>st</sup> Astro Design in Kriti, Inter hostel technical festival, IIT Guwahati.
- 2<sup>nd</sup> Green advertisement in Kriti'11, Inter hostel technical festival, IIT Guwahati.
- 3<sup>rd</sup> Overnight Hackathlon in Kriti'12, Inter hostel technical festival, IIT Guwahati.
- Attended a workshop based on concepts, design and building IR Sensors by Skytechlabs.
- Successfully completed online courses- Human-Computer Interaction and Learn to Program.

#### **Positions of Responsibility:**

• Core Team Member, Brand Communication and Creatives, Techniche, Techno-management Festival, IIT Guwahati (2011-2012).

#### Other interests:

Exploring, Tinkering, Photography, Travelling, Reading, Blogging