# **ASHRIS CHOUDHURY**

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#### **EDUCATION**

# Visiting Student, MIT Media Lab (Fluid Interfaces Group)

Aug 2017 - May 2018

Classes Taken: Cognitive Augmentation | StartMIT Entrepreneurship 101 | Depolarization by Design | Tangible Interfaces

## Bachelor of Architecture (Hons), IIT Kharagpur

Jul 2012 - Jul 2017

Classes Taken: Programming & Data Structures, Artificial Intelligence, Operations Research, Innovation Management

#### **PUBLICATIONS**

M. Khan, F. Trujano, **A. Choudhury**, P. Maes, "Mathland: Playful Mathematical Learning in Mixed Reality", Proc. ACM SIGCHI Conference on Human Factors in Computing Systems (CHI 2018 Extended Abstract)

T. Dingler, **A. Choudhury**, V. Kostakos, "Biased Bots: Conversational Agents to Overcome Polarization", ACM Conference on Pervasive and Ubiquitous Computing (UbiComp 2018)

#### **EXPERIENCE**

Creator, India in Pixels Mar 2019 - Present

India in Pixels is a YouTube channel with 56,500 subscribers focused on visualising data as dynamic bar-time graphs.

- Scraped over 90 webpages and 12 PDFs with Python to obtain data on Cricket, Bollywood, Politics and Demography.
- Built a generic JavaScript based visualisation engine to convert tabular time-series data to animated video visualisation.
- Created over 67 videos in 6 months with a total of 11 Million Views and a net watch time of 9 Million Minutes.

### Full Stack Developer, Qwilr (Sydney)

Jul 2019 - Present

Owilr is a web application that automates the creation of marketing documents using an intuitive drag and drop interface.

- Implemented the functionality of adding captions to images in the Slate Editor, deployed to 200 enterprise customers.
- Refactored the existing dashboard to enable searching for any content in the projects using Elasticsearch and Kibana.

# Full Stack Developer, Shipsy (Gurgaon)

Aug 2018 - Jun 2019

- Automated pagination, sorting and filtering for SQL queries minimising development time by 15% across all modules.
- Built a tool for the sales team that created a new organisation in the shippers dashboard right from Google Spreadsheet reduced the organisation setup time from 20 minutes to 15 seconds, boosting sales by 30-40% (full ownership).

### **Data Journalism Fellow, Hindustan Times (Delhi)**

May 2018 - Aug 2018

- Built an ELO-based rating and prediction model for the FIFA World Cup 2018 based on the data from past 16 years.
- Studied the correlation of change in the ruling party with the transfers of bureaucrats in different states of India.

#### Research Assistant, MIT Media Lab (Cambridge, Massachusetts)

Aug 2017 - May 2018

- •Developed a mixed reality game environment for children to learn physics and maths concepts interactively. Programmed over 10,000 lines in C# and conducted extensive user studies with students to arrive at the final design.
- Designed hardware prototypes and trained the RNN for AlterEgo a wearable that estimates what someone is thinking on the basis of 36 micro-vibration sensors on the face. Developed a proof of concept to connect the internet to the mind.

# **SELF PROJECTS**

The 13 x 29 Project Sep 2018

- Scraped tweets of 29 leaders from 13 different fields in India after the Section 377 verdict by the Supreme Court to visualise how different sectors of society welcomed the verdict.
- Invited by the Processing Foundation to present the project in the First Processing Community Day in Bangalore (2019)

#### **Network Visualisation of Facebook Clusters**

Apr 2018

- Wrote a python script to automate the process of extracting mutual friends data of over 2000+ friends on Facebook.
- Visualised the mutual friendship links using Force Atlas Algorithm on Gephi and computed the network metrics such as clustering coefficient, path distance and closeness centralities to study how susceptible to echo chambers the network is.
- Featured in the 'Towards Data Science' journal (10,000+ readers/month) and Kantar Information is Beautiful Awards 2018.

# A Date With Yourself - Social Media Analytics for Self-Counselling (MIT Media Lab)

Apr 2018

• Developed a Seq2Seq RNN model trained on Facebook messages to create a digital avatar of the user's past selves that the user can have conversations with, demoed the project to over 50 members during MIT Media Lab's 'Members' Week'.

### You++ 2018 - MIT IBM Watson Hackathon 2018 (MIT Sloan School of Management)

Sep 2017

• Built a new year resolution planner using IBM Watson's Personality Insights API that creates a personalized list of 12 movies which when watched sequentially would nudge the user's personality closer to their role model's personality.

#### **Sparreo - Lost & Found Chatbot for Cities**

Mar 2017

- Devised a chat bot to report lost and found items in any city, won the Entrepreneurship Summit Hackathon, IIT Kharagpur
- Conceptualised a reward based QR system to incentivise return of items, connected with 3 investors for the idea.

#### Sky of Thoughts - Anonymous Community Support Platform For Mental Health

Feb 2017

- Created an anonymous platform that lets students share their anxieties and help each other cope up with mental issues.
- Implemented an emergency alert feature to seek urgent help from the campus counsellors immediately.

### 20,000 Blocks - Collaborative Architectural Design Gamification Platform

Apr 2016

- •Built a Minecraft game to teach architectural principles to beginners like spatial configurations and resource optimisation.
- •Performed stress simulations of end models on Grasshopper and printed the model with the help of the Kuka Robot.

#### **UX Research for Smart Wearable Witworks, Bangalore (acquired by Myntra)**

Dec 201

- Led a group of 4 to devise an extensive user study for the custom MarvinOS, made custom wireframes and interactions.
- In charge of creating promotional content for the product on social media with 4 creatives, 3 articles and 1 promo video.

# **ESUM - Emotional Feedback Driven Urban Planning (ETH Zurich)**

May 2015

- Built a machine learning model to predict the emotional response to city's spatial and environmental design.
- Implemented OpenCV HAAR Cascade algorithm to blur human faces from stereoscopic street footage in Zurich.
- Collaborated with the Cognitive Science Department on emotion extraction from physiological and neurological data.

#### AWARDS AND ACHIEVEMENTS

### DesignUp Scholar 2019 (Bangalore)

(2019)

A fully sponsored invitation to the DesignUp Conference on data visualisation, design and programming.

# All India Rank 1, National Institute of Design Exam (Bangalore)

(2019)

All India Rank 1 in the Game Design stream and All India Rank 2 in the Information Design stream.

#### Speaker, Processing Community Day 2019 (Bangalore)

(2019)

Invited to present the project 13x29 - visualisation of tweets post the Section 377 verdict by the Supreme Court.

# Kantar Information is Beautiful Award

(2018)

Featured project "Visualising my Facebook Network Clusters" - one of 200 projects to be showcased in the website.

### MIT Sandbox Fund for Entrepreneurship MIT

(2018)

Awarded \$1000 for developing Pool-ed, a Chrome extension that offers rewards to complete MOOCs.

### Selected for Young India Fellowship

(2017)

Selected for the coveted YIF Fellowship identifying India's best students to be the future change makers.

# Kantar Information is Beautiful Award

(2017)

Featured project "Indecoded - Visualising India through Cartograms" - one of 100 projects to be showcased in the website

#### Winner, GES Hackathon (Chatbots for Social Impact) IIT Kharagpur

(2016)

Won the GES Hackathon (out of 100 teams) for developing "Sparreo: Chatbot to incentivise lost and found systems in city"

#### National Finalist General Electric Edison Challenge, Bangalore

(2016)

Top-25 in India - Developed Trafix - a route planning system to solve city's traffic issues via gamification incentives.

### Winner, National Level Debate Spring Fest 2015, IIT Kharagpur

(2015)

Topped out of 200 participants through seven rounds of debates in Spring Fest, 2015.

### OTHER ACTIVITIES

- LGBTQ+ Activism: Member of the LGBTQ+ support group in IIT Kharagpur. One of the 20 petitioners in India to file a petition to the Supreme Court of India to repel the colonial era law Section 377 which criminalised homosexuality.
- Founded Design++, an interdisciplinary tech cum design group in IIT Kharagpur. Conducted workshops on Generative Art, Web Development and Parametric Architecture.

#### **TECHNICAL SKILLS**

Languages: JavaScript | HTML/CSS | Python | C#

Backend: NodeJS, Express, Loopback, NestJS

**Design:** Adobe Creative Suite, Sketch, Adobe XD

**Frontend:** ReactJS | Bootstrap | d3 | p5js

**Databases:** Firebase | MongoDB | SQL (Postgres)

General Dev: Postman, JIRA, Git