

# ASHRIS CHOUDHURY

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## EXPERIENCE

### Creator, India in Pixels

2019 - Present

*India in Pixels is a data visualisation content platform focused presenting data about India in a visually impactful form.*

- Built a JavaScript based visualisation engine to convert tabular time-series data to animated video visualisation.
- Wrote Python spiders to fetch data from 90 websites to obtain datasets on Cricket, Bollywood, Politics and Demography.
- 24M Views on YouTube (96.8K subs) | 33.2K followers - Twitter | 66K followers - Facebook | 71.2K followers - Instagram

### Senior Frontend Engineer, BharatPe (New Delhi)

2020 - Present

*BharatPe is a Sequoia backed Fin-tech company enabling QR code-based payment for offline retailers and businesses.*

- Led the Web & Native Development of the Fleet on Street app - used by company's agents tasked to onboard businesses
- Centralised the KYC module used by BharatPe's 6M username for collecting and automatic verifying user documents

### Full Stack Developer, Shipy (Gurgaon)

2018 - 2019

*Shipy is SaaS platform that helps supply chain companies increase operational efficiency levels using actionable insights*

- Helped develop the CRM and the User Management modules with custom data visualisation components in ReactJS
- Built a growth tool for the sales team with Google Spreadsheet Script that reduced setup time from 20 mins to 15 secs

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

2018

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

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

2017 - 2018

- Developed a mixed reality app on Microsoft HoloLens to make learning physics and maths concepts intuitive.
- Programmed over 10,000 lines in C# and conducted extensive user studies with students to arrive at the final design.

## EDUCATION

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

08/2017 - 05/2018

Classes Taken: Cognitive Augmentation | StartMIT Entrepreneurship 101 | Introduction to Deep Learning | Tangible Interfaces

### Bachelor of Architecture (Hons), IIT Kharagpur

07/2012 - 06/2017

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

**Online Classes:** Neural Networks & Deep Learning (deeplearning.ai) | Python Specialisation (U-Mich), UX Research (UCSD)

## 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 Polarisation", ACM Conference on Pervasive and Ubiquitous Computing **(UbiComp 2018)**

## SELF PROJECTS

### Map Maker

Oct 2020

- Built a web tool that automates transforming data in government PDF files into map choropleths customised for social media posts. Allowed for rapid content generation for the Twitter handle - @indianpixels

### India Corona Tracker

Mar 2020

- Built a mobile friendly compatible for people in India to visualise state-wise number of Corona Virus cases in India as a heat map - built using d3js and ReactJS. Normal traffic: 25,000 hits per day from 20+ countries.

### 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

- Generated an animated Friendship Network by scraping the profiles of over 2000+ mutual friends on Facebook.
- Computed the network metrics to measure clustering and centrality to compare different networks on the basis of echo chamber-ability. Featured in the 'Towards Data Science' journal 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.
- 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

- Entrepreneurs' Forum Cohort 2021 (Bangalore)** **(2020)**  
Selected for the Bangalore-5 Cohort of EF with a grant of \$2000 each month for 3 months.
- 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.
- 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 Traftix - 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 repeal the colonial era law Section 377 which criminalised homosexuality.
- Founded Design++, an interdisciplinary design group in IIT Kharagpur to teach generative design to freshers.

## TECHNICAL SKILLS

<b>Languages:</b> JavaScript   Typescript   Python	<b>Frontend:</b> ReactJS   Redux   VueJS   d3   p5js   Re
<b>Backend:</b> NodeJS, Express, NestJS, Firebase Cloud	<b>Databases:</b> Firebase   MongoDB   SQL (Postgres)
<b>Design:</b> Adobe Creative Suite, Unity, Adobe XD	<b>General Dev:</b> Postman, JIRA, Git, AWS, Heroku
<b>Data Science:</b> Tensorflow, R, numpy, beautifulsoup, requests, matplotlib, scikit-learn, MATLAB	