

# Avijit Ghosh

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## Education

### Northeastern University

Ph.D. in Computer Science | Advisor: Alan Mislove

Boston, MA

2019 – Present

### Indian Institute of Technology (IIT) Kharagpur

B.Tech. in Chemical Engineering, M.Tech in Financial Engineering, Minor in Computer Science

Kharagpur, India

2014 – 2019

## Experience

### Northeastern University

Boston, MA

Research Assistant at Khoury College of Computer Sciences

Sep 2019 – Present

- Research interests: Social Networks, Algorithmic Auditing, Machine Learning, Human Computer Interaction, Usable Privacy
- Study of advertiser behavior and targeting patterns on Facebook
- Investigated the ad reach information obtained from Facebook's ad transparency feature and the personal targeting dataset from Propublica's Facebook ad dataset, aided with controlled ad placement experiments. Findings published at [IEEE ConPro 2019](#).

### LIG, University of Grenoble Alps

Grenoble, France

Visiting Researcher

May 2019 – July 2019

- Study of how news companies promote different items on social media, investigating possible patterns of differential information spreading using both posts and ads. Preparing a manuscript to be submitted at [WWW'20](#).

### Xerox Research Centre

Bangalore, India

Research Intern

May 2017 – July 2017

- Implemented XTrack, a Smart Vehicle Tracking and Battery usage minimizing Algorithm, using BLE to distribute GPS information.
- Uber Surge Price Prediction using Spatio-Temporal techniques like the Neural Hawkes and Recurrent Marked Temporal Point Process. Was awarded the title of [Best Internship Project](#).

### Google Summer of Code – OpenMRS

Remote

CSoc Student

Apr 2016 – Aug 2016

- Replaced the HTML XForms system used in the Android app with native generated forms using the Forms REST Api and added offline form saving. Configured Travis CI to automatically build and push the apk to play store. Contributed [100K lines of code](#).

### IIT Kharagpur

Kharagpur, India

Undergraduate Researcher

2014 – 2019

- Vector space representation of organic molecules to predict aqueous solubility using deep learning techniques.
- Automated Extraction of Catchwords from Legal Documents using a novel NER based tagger.
- Automatically position user comments against relevant news article paragraphs. Presented at [ECIR 2019](#).
- Data Driven Disaster Response Systems using Social Media (at the CNERG Lab):
  - Project: Savitr – Realtime location extraction during emergencies, published at [WWW-SMERP 2018](#).
  - Project: Classification and Summarization of tweets during a disaster event, presented at [IBM Day 2016](#).

## Publications

### Analyzing Political Advertisers' Use of Facebook's Targeting Features

Avijit Ghosh, Giridhari Venkatadri, Alan Mislove

Conpro '19

San Francisco, California

### Public Sphere 2.0: Targeted Commenting in Online News Media

Ankan Mullick, Sayan Ghosh\*, Ritam Dutt\*, Avijit Ghosh\*, Abhijnan Chakrabarty \* equal contribution

ECIR '19

Cologne, Germany

### SAVITR: A System for Real-time Location Extraction from Microblogs during Emergencies

Ritam Dutt, Kaustubh Hiware, Avijit Ghosh, Rameshwar Bhaskaran

WWW-SMERP '18

Lyon, France

### Molecule2Vec: Vector Space Representation of Organic Molecules for prediction of properties using Deep Neural networks

Avijit Ghosh, Debasis Sarkar

EUCHEMS '18

Liverpool, UK

### WebSelect: A Research Prototype for Optimizing Ad Exposures based on Network Structure

Avijit Ghosh, Agam Gupta, Divya Sharma, Uttam Sarkar

WITS '16

Dublin, Ireland

## Awards & Grants

2019 **Winner**, Best Poster Award

ECIR'19

2019 **Winner**, Institute Order of Merit – Technology

IIT Kharagpur

2018 **Winner**, SGSIS Institute Challenge Grant – Worth INR 1 Million

IIT Kharagpur

## Skills

**Languages** Python, Java, C, R, Bash, SQL, HTML/CSS, JavaScript, Matlab  
**Frameworks** Git, Travis, Keras, TensorFlow, Docker, Android