

# Tapabrata Chakraborty

tapabrata@cs.otago.ac.nz

## EDUCATION

### UNIVERSITY OF OTAGO

PHD, COMPUTER SCIENCE  
Expected 2018 | Dunedin, NZ

- Univ. of Otago Doctoral Scholarship

### JADAVPUR UNIVERSITY

MENG & BENG, ELECTRICAL ENGG  
Graduated 2013 | Kolkata, India

GPA: 9.33 / 10 (MEng) | 8.91 / 10 (BEng)  
• Govt. of India GATE Scholarship

## ENTREPRENEURSHIP

### GEIA LTD.

(Social Enterprise for Sustainable Business Practices)

Co-founder/Director and CFO

- Won Callaghan Innovation Grant (R&D)

## CONSULTANCY

### HIGH PERFORMANCE SPORT NZ

(Analysis of NZ Sport data for Olympics 2016)

Data Science Advisor

- Machine Learning using R, Python

## AWARD

Diane Campbell-Hunt Memorial Award  
-For Contribution to Conservation in NZ, 2017

## MEMBERSHIP

### PROFESSIONAL BODIES

Institution of Engg & Tech (IET), UK  
Member | Sept 2014 till date

Institution of Engineers, India (IEI)

Associate Member | Oct 2013 till date

IEEE, IAPR and Royal Society NZ

Student Member

## CERTIFICATION

### CHARTERED ENGINEER (ELECTRICAL)

Institution of Engineers, India (IEI)

License: AM150470-6 | Nov 2013

## REVIEWER

Journal: Pattern Recognition Letters

Conference: ICDAR, ICPR

## MISCELLANEOUS

Erdos Number: 3

Through collab. with Dr. A. S. Chowdhury  
(IVPR Group, Jadavpur University, India)

## REFERENCES

-Available on request

## EXPERIENCE

### INDIAN STATISTICAL INSTITUTE | VISITING RESEARCHER

Sep 2017 – Feb 2018 | Kolkata, India

- Funded visit to CVPR Unit to conduct part of doctoral research and field work.

### UNIVERSITY OF CALIFORNIA, BERKELEY | VISITING RESEARCHER

May 2017 – Aug 2017 | Berkeley, CA

- **Project**- Collaborative Representation based Deep Transfer Learning.
- Worked with Dr. Stella Yu at the International Computer Science Institute.
- Awarded Kevin Novins Travelling Scholarship (2017) worth \$12,000usd.

### INDIAN STATISTICAL INSTITUTE | PROJECT LINKED RESEARCHER

Jan 2015 – Oct 2015 | Kolkata, India

- Project on Automated Document Image Analysis and Pattern Recognition.
- Awarded the Debesh Kamal Scholarship (2015); Worked with Dr. U. Pal.

## TEACHING

### UNIVERSITY OF OTAGO | TUTOR/DEMONSTRATOR

Spring 2016, Spring 2017, Spring 2018 (3 semesters) | Dunedin, NZ

- Tutor/Demonstrator of Programming Course in Python (COMP150)

### JADAVPUR UNIVERSITY | GUEST FACULTY

Spring 2013, Spring 2015 (2 semesters) | Kolkata, India

- Taught Electrical Measurement (ET/T/121) and Circuit Theory (IT/PE/T/124)

## RESEARCH

### UNIVERSITY OF OTAGO | DOCTORAL RESEARCH

Nov 2015 – Present | Dunedin, NZ

- **PhD Thesis** on Collaborative Learning for Fine-grained Visual Classification.
- **International collab.** between Univ. of Otago, NZ & CVPR Unit, ISI.

### INDIAN STATISTICAL INSTITUTE | PRE DOCTORAL RESEARCH

Jan 2015 – Oct 2015 | Kolkata, India

- Project on Document Image Analysis funded by Govt. of India.
- **International collab.** between CVPR Unit, ISI & Univ. de la Rochelle, France.

### JADAVPUR UNIVERSITY | MASTERS RESEARCH

July 2011 – June 2013 | Kolkata, India

- **MEng thesis** was on Face & Emotion Recognition based Biometrics.
- Project funded by the University Grants Commission, India (**UPE-II award**).
- **2nd project** on Blood Vessel Segmentation from Retinal Fundus Images.
- **International collab.** between IVPR Group, JU & Univ. of Muenster, Germany.

## SELECTED PUBLICATIONS

**CITATIONS: 62, H-INDEX: 4 | COMPUTER VISION, MACHINE LEARNING**

Journal: 4 published, 1 pending | Conference: 3 published, 1 pending [[full list](#)]

1. **T. Chakraborti**, B. McCane, S. Mills, U. Pal: "A Generalized Formulation for Collaborative Representation of Image Patches (GP-CRC)". *BMVC*, 2017.
2. **T. Chakraborti**, B. McCane, S. Mills, U. Pal: "Collaborative representation based fine-grained species recognition". *IVCNZ*, 2016.
3. N. Tripathy, **T. Chakraborti**, M. Nasipuri, U. Pal: "A scale and rotation invariant scheme for multi-oriented Character Recognition". *ICPR*, 2016.
4. **T. Chakraborti**, D. K. Jha, A. S. Chowdhury, X. Jiang: "A self-adaptive matched filter for retinal blood vessel detection". *Mach. Vis. Appl.* 26(1): 55-68 (2015).