Tapabrata Chakraborty

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EDUCATION

UNIVERSITY OF OTAGO
PhD, Computer Science
Dec 2018 | Dunedin, NZ
- Univ. of Otago **Doctoral Scholarship**

JADAVPUR UNIVERSITY
MEng & BEng, Electrical Engg
June 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
- Won Callaghan **Innovation Grant** (R&D)

CONSULTANCY

HIGH PERFORMANCE SPORT NZ
(Analysis of NZ Sport data for Olympics 2016, 2020)
DATA SCIENSTIST
- Machine Learning using R, Python, SQL

PROFESSIONAL BODIES

Member:
Institution of Engg & Tech (IET), UK
Centre for AI and Public Policy, NZ

Student Member:
IEEE, IAPR and Royal Society NZ

AWARD

- Diane Campbell-Hunt **Memorial Award**
-For Contribution to Conservation in NZ, 2017
- Best Student Paper Award
-IEEE International Conference IVCNZ, Auckland, 2018

CERTIFICATION

CHARTERED ENGINEER (ELECTRICAL)
Institution of Engineers, India (IEI)
License: AM150470-6 | Nov 2013

REVIEWER

Pattern Recognition Letters, Pattern Recognition, Signal Processing Letters

CONFERENCE

Organizing Committee: ACPR 2019, NZ

REFERENCES

-Available on request

RESEARCH

UNIVERSITY OF OXFORD | Post Doctoral Research
March 2019 – May 2020 | Oxford, UK
- **Project**- Causal Inference enabled Computer Vision and Machine Learning
- **Research Group**- Engineering Science; **Funding**- Seebibyte grant

UNIVERSITY OF OTAGO | Doctoral Research
Nov 2015 – Dec 2018 | Dunedin, NZ
- Earlier **PhD Thesis** on Collaborative Learning of Fine-grained Visual Data.

UNIVERSITY OF CALIFORNIA, BERKELEY | Visiting Research
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 | 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.
- Awarded the **Debesh Kamal Scholarship** (2015); Worked with Dr. U. Pal.

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.

TEACHING

UNIVERSITY OF OTAGO | Tutor/Demonstrator
2016-2018 (2 years) | Dunedin, NZ
- Tutor/Demonstrator of coding in **Python** (COMP150) and **Java** (COMP160)

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)

SELECTED PUBLICATIONS

CITATIONS: 105, H-INDEX: 5 | Computer Vision, Machine Learning
Journal: 4 published, 1 pending | Conference: 4 published, 1 pending [full list]

1. Rukhmini Roy, **Tapabrata chakraborti**, and Ananda Shankar Chowdhury, "A deep learning-shape driven level set synergism for pulmonary nodule segmentation", *Pattern Recognition Letters*, 123: 31-38, 2019.
2. **T. Chakraborti**, B. McCane, S. Mills, U. Pal: "Fine-grained Collaborative K-Means Clustering", *IVCNZ*, 2018. **(Best Student Paper Award)**
3. **T. Chakraborti**, B. McCane, S. Mills, U. Pal: "LOOP Descriptor: Local Optimal-Oriented Pattern", *IEEE Signal Processing Letters*, 25(5):635-639, 2018.
4. **T. Chakraborti**, B. McCane, S. Mills, U. Pal: "A Generalized Formulation for Collaborative Representation of Image Patches (GP-CRC)", *BMVC*, 2017.
5. N. Tripathy, **T. Chakraborti**, M. Nasipuri, U. Pal: "A scale and rotation invariant scheme for multi-oriented Character Recognition", *ICPR*, 2016.
6. **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).