Dr Harshita Sharma PhD

Post-Doctoral Research Assistant in Biomedical Image Analysis
Teaching Assistant in Engineering Science
Institute of Biomedical Engineering, Department of Engineering Science, University of Oxford
Old Road Campus Research Building, Headington Oxford OX3 7DQ, United Kingdom
✉ harshita.sharma@eng.ox.ac.uk | ☎ +44 (0) 1865 617696 | 📱 +44 (0) 7475354739
🖉 _Oxford EngSci | IBME | TU Berlin Alumni | GoogleScholar | ResearchGate | Academia | Orcid | LinkedIn | ResearcherID_

A Postdoctoral Engineering Scientist with research and teaching experience aspires to become an academic, and actively contribute towards scientific research, development and education.

RESEARCH INTERESTS

Biomedical Image Analysis, Computer Vision, Deep Learning, Classical Machine Learning, Eye Tracking, Graph Theory, Ultrasound Imaging, Digital Pathology and Microscopic Imaging, Image Processing, Signal Processing, Natural Language Processing, Heterogeneous Data Analysis, Big Data, Data Mining, Multimodal Analysis

CAREER HIGHLIGHTS

- **Multidisciplinary engineering background** with research, teaching and qualification in Biomedical, Computer, Electrical, Electronics and Communication Engineering.
- **Top 1% of class** during all educational degrees.
- **More than 400 hours teaching experience** as **PDRA at the University of Oxford** (lectures, tutorials, lab demonstrations, independent studies, research co-supervision, exam paper setting), and as **Lecturer at JIIT, India** (lectures, tutorials, lab instruction, project supervision, exam paper setting).
- **Research expertise** in medical image analysis, deep and classical machine learning, image and signal processing applied to medical imaging such as digital pathology, ultrasound imaging and radiology in all higher educational degrees (Bachelor, Master and Ph.D.) and Postdoc.
- Authored more than **20 research publications**, with **more than 10 publications** as first author and more than **200 citations** on Google Scholar.
- Attended several **international conferences, seminars, workshops** and **scientific meetings** worldwide with more than **20 presentations** (invited talks, oral and poster presentations) in the last five years.
- Completed higher education via **competitive selections** in public universities, with **educational funding (scholarships)** for Master's degree, Master's dissertation and PhD degree, and **cash prize awards** during Bachelor's and Master's degree.
- Held **volunteering roles**, most recent as Reviewer (PLOS ONE, Elsevier journals, Springer journals, IEEE journals and conferences) and Member (TU Berlin Alumni Club, WIE Oxford, MedIAN, SPIE, CES, SAB).

WORK EXPERIENCE

May 2017— Present | Post-Doctoral Research Assistant　　　　　　_University of Oxford, UK_

Oct 2018 — Present | Teaching Assistant (Department of Engineering Science)

ERC Advanced Grant PULSE (https://www.eng.ox.ac.uk/pulse), Biomedical Image Analysis research group, Institute of Biomedical Engineering, Department of Engineering Science (PI: Prof Alison Noble)

Research

- Performing **independent research** and **collaborating** with project team members, including Nuffield Department of Women's & Reproductive Health at the John Radcliffe Hospital.
- **Contributing** to PULSE project in data acquisition, documentation, annotation etc., and developing tools for data annotation and pre-processing.
- **Communicating research** through more than ten papers published/accepted as first/co-author in international journals and conferences.

Teaching and Administration

- **Lead Tutor** (2019-20) and Tutor (2018-19) with tutorials and exam setting in Circuits and Communications.
- **Lecture and lab demonstration** (2018, 2019) in coursework module Biomedical Engineering: Introduction to Biomedical Image Analysis.
- **Lectures and practical** (2018, 2019) in Advanced Image Analysis module at the DTC-ONBI Programme.

- **Tutorials and independent studies** (2018) on Mathematical Modelling for Teach First Futures Easter School and Headstart Programme.
- Assisting the professor by co-supervision of DPhil students.
- **Organizing seminars** especially the Machine Learning Seminar Series in the BioMedIA group.

2012 —2013 | Lecturer   *Jaypee Institute of Information Technology, Noida, India*

Electronics and Communication Engineering

Teaching and Administration

- **Course Coordinator-Lectures, Tutorials and Exam Paper-Setting:** Electrical Machines and Instruments
- **Lab Instructor:** Electrical Machines and Instruments
- **Course Instructor-Lectures and Tutorials:** Basic Electronic Devices and Circuits
- **Lab Instructor:** Basic Electronic Devices and Circuits
- **Project Supervisor:** Undergraduate 3rd year and 4th year projects

EDUCATIONAL QUALIFICATIONS

October 2013 — April 2017 | Ph.D. (Dr.-Ing.)   *Technical University Berlin, Berlin, Germany*

Faculty IV: Faculty of Electrical Engineering and Computer Science (Supervisor: Prof Olaf Hellwich)

- Specialization   : Computer Vision
- Grade   : *Magna-cum-Laude (Sehr gut-very good)*
- Funding   : **DAAD Full-time PhD Scholarship (October 2013-March 2017)**

2010 — 2012 | M.Tech.   *Indian Institute of Technology, Roorkee, India*

Department of Electrical Engineering (Supervisor: Prof R S Anand)

- Specialization   : Instrumentation and Signal Processing,
- Grade   : **9.58 / 10** (Cumulative Grade Points Average)
- Position   : **1st in Department of Electrical Engineering**
- Funding (dissertation): **DAAD-IIT Master Sandwich Program Scholarship (September 2011-May 2012)**
- Funding (degree)   : **Scholarship by Ministry of Human Resource Development, India (2010-12)**

2006 — 2010 | B.Tech.   *Indira Gandhi Institute of Technology, GGSIPU, New Delhi, India*

Electronics and Communication Engineering

- Grade   : **85.42%** (Cumulative Performance Index)
- Position   : **1st in Department of Electronics and Communication Engineering (ECE)**

1992 — 2006 | School   *Delhi Public School, Vasant Kunj, New Delhi, India*

- Grades   : **94.0%** (CBSE XII Board -2006) and **94.8%** (CBSE X Board -2004)
- Positions   : **Gold medalist,** 3rd position (XII) and 2nd position (X) in school

SELECTED HONOURS AND AWARDS

- Teaching portfolio passed for **SEDA PDF Supporting Learning Award** (2019).
- **Selection** and **Grant** to participate in the **68th Lindau Nobel Laureate Meeting** in Lindau, Germany (2018).
- **Robert F. Wagner All-Conference Best Student Paper Award** in recognition of the professional excellence of research paper at SPIE Medical Imaging Symposium, San Diego, USA (2016).
- **Best Poster Award** at SPIE Medical Imaging (Digital Pathology), San Diego, USA (2016).
- **Selection** and **Grant** to participate in the **3rd Heidelberg Laureate Forum** in Heidelberg, Germany (2015).
- **Full-time DAAD PhD Scholarship** under Prof. Olaf Hellwich, TU Berlin, Berlin, Germany (2013).
- **Topper (1st Position) in M.Tech.** Electrical Engineering, IIT Roorkee- Cash Prize Award (2012).
- **DAAD-IIT Master Sandwich Scholarship** under Prof. Olaf Hellwich, TU Berlin, Berlin, Germany (2011).
- **Merit Rank 27** in **All-India ISRO Recruitment Drive for Engineer-Scientist 2010,** Delhi, India (2010).
- **98.82 Percentile**, **All-India Rank 1229** in Graduate Aptitude Test in Engineering (GATE) - EC, India (2010).
- **Topper (1st Position) in B.Tech.,** ECE Department, IGDTUW: Cash prize awards, Delhi, India (2008-2010).
- **Gold Medal for Excellence in Academics in school,** DPS Vasant Kunj, Delhi, India (2005).
- **Scholarship** for scoring above 95% in Sanskrit in CBSE X board examination, Delhi, India (2004).
- **3rd position** in Rashtriya Kavita Award, **National poetry writing competition,** Delhi, India (1998).