

# Jitesh Joshi

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in jnj256

🌐 Webpage



## Work Experience [Employment History]

- 2020 – . . . . **Postgraduate Research Teaching Assistant.** Computer Science Department, University College London, London, United Kingdom.
- Solution Architect.** Healthcare and Life-sciences Business Unit, Tata Elxsi, London, United Kingdom
- 2016 – 2020 **Specialist.** Healthcare and Life-sciences Business Unit, Tata Elxsi Limited, Pune, India
- 2014 – 2016 **Lead R&D Engineer.** Azoi Inc, Ahmedabad, India.
- 2011 – 2014 **Senior R&D Engineer.** Neuro-imaging & Neuro-spectroscopy Lab, National Brain Research Centre, Gurugram, India.
- 2009 – 2010 **Programmer Analyst** Telecommunication Department, Cognizant Technology Solutions, Bengaluru, India.

## Education

- 2020 – 2024 **Ph.D. Candidate, Computer Science,** University College London, London, United Kingdom.  
Thesis title: *Contactless Extraction of Physiological Signals using RGB and Thermal Infrared Imaging.*
- 2010 – 2011 **M.Sc., Cognitive Systems & Interactive Media,** Pompeu Fabra University, Barcelona, Spain.  
Thesis title: *Study on the Role of Brain Wave Entrainment by Binaural Beats & Music in Recovery of Coma.*
- 2004 – 2008 **B.Tech., Electronics & Communication,** Nirma University, Ahmedabad, India.  
Internship: *GSM Network Switching Subsystem at Nokia Siemens Networks.*

## Publications




### Journal Articles

- 1 **J. Joshi** and Y. Cho, “Ibvp dataset: Rgb-thermal rppg dataset with high resolution signal quality labels,” 2024.
- 2 **J. Joshi**, K. Wang, and Y. Cho, “Physiokit: An open-source, low-cost physiological computing toolkit for single-and multi-user studies,” *Sensors*, vol. 23, no. 19, p. 8244, 2023. [URL: https://www.mdpi.com/1424-8220/23/19/8244.](https://www.mdpi.com/1424-8220/23/19/8244)
- 3 **J. Joshi**, S. Saharan, and P. K. Mandal, “Boldsync: A matlab-based toolbox for synchronized stimulus presentation in functional mri,” *Journal of neuroscience methods*, vol. 223, pp. 123–132, 2014.
- 4 P. K. Mandal, **J. Joshi**, and S. Saharan, “Visuospatial perception: An emerging biomarker for alzheimer’s disease,” *Journal of Alzheimer’s Disease*, vol. 31, no. s3, S117–S135, 2012.





### Conference Proceedings

- 1 **J. Joshi**, N. Bianchi-Berthouze, and Y. Cho, “Self-adversarial multi-scale contrastive learning for semantic segmentation of thermal facial images,” in *33rd British Machine Vision Conference 2022, BMVC 2022, London, UK, November 21-24, 2022*, BMVA Press, 2022. [URL: https://bmvc2022.mpi-inf.mpg.de/0864.pdf.](https://bmvc2022.mpi-inf.mpg.de/0864.pdf)

## Patents









- 1 T. Tran, H. Watson, and **J. Joshi**, "Imaging device with illumination components," 2021.  URL: <https://patents.google.com/patent/WO2021229347A1>.
- 2 T. Tran, H. Watson, **J. Joshi**, and R. Patel, "Compensation of intensity variances in images used for colony enumeration," 2021.  URL: <https://patents.google.com/patent/WO2021229337A1>.
- 3 T. Tran, H. Watson, **J. Joshi**, A. SK, and R. Tiwari, "Detecting a condition for a culture device using a machine learning model," 2021.  URL: <https://patents.google.com/patent/WO2021234514A1>.

## Skills






Areas of Specialization	 Research & Development, Computer Vision, Deep Learning, Physiological Computing, Systems Engineering
Coding & Frameworks	 PyTorch, TensorFlow, Python, C/C++, MATLAB, $\text{\LaTeX}$ , ...
Misc.	 Academic research, teaching, training, consultation
Languages	 Reading, writing and speaking competencies for English, Hindi, Gujarati.

## Miscellaneous Experience

### Post Graduate Teaching Assistant

2020 - 2024	 <b>Research Methods and Making Skills</b> ,  COMP0145, Computer Science, University College London, U.K.
	 <b>Affective Computing and Human-Robot Interaction</b> ,  COMP0053, Computer Science, University College London, U.K.
	 <b>Affective Interaction</b> ,  PSYC0021, UCL Interaction Centre, University College London, U.K.
2022 - 2023	 <b>Systems Engineering</b> ,  COMP0016, Computer Science, University College London, U.K.

### Awards and Achievements

2020	 <b>Project Excellence Award</b> . Project: Edge computing based dense object detection for enumerating bacterial colonies. Role: Project Lead, Tata Elxsi, Pune, India.
	 <b>Project Excellence Award</b> . Project: Design of innovative automated peritoneal dialysis system. Role: R&D Lead, Tata Elxsi, Pune, India.
2019	 <b>Hackathon Winner</b> . Topic: AI-based medical image enhancement; Organizer: Tata Elxsi, Pune, India.
2018	 <b>Tata Innovista.</b> , Piloted Technologies - Point-of-care Testing Device for Malaria and Sickle Cell Disease.  URL

### Certification

2019	 <b>Executive Data Science Specialization</b> . Awarded by Coursera.
2018	 <b>Deep Learning Specialization</b> . Awarded by Coursera.

## References

Available on Request