

Jitesh N Joshi

Career Interests

Areas: Artificial Intelligence, Computer Vision, Systems Engineering, Healthcare Technologies

Roles: Research Intern, Research Scientist, R&D Manager, Project Manager

Profile Summary

- ❖ Proficient in leading research projects in healthcare and life-sciences industry.
- ❖ Experienced in developing and deploying AI solutions for medical devices.
- ❖ Keenly interested in developing impactful technological solutions.

Education

University College London, London, United Kingdom

Ph.D., Computer Science (pursuing)

2020 – 2024



Universitat Pompeu Fabra, Barcelona, Spain

M.Sc., "Cognitive Systems and Interactive Media"

2010 – 2011

Score: 7.67/10 | Credits: 60



Nirma University, Ahmedabad, India

B.Tech., "Electronics and Communication"

2004 – 2008

Score: 7.69/10 | Credits: 186



Professional Experience

➤ **University College London, UK**

Post-graduate Teaching Assistant (Computer Science) Oct 2020 – Ongoing

- ❖ Teaching and project mentoring for: Computer Vision, Machine Learning, Research Methods and Making Skills, Python, Physiological Computing



➤ **Tata Elxsi Ltd, Pune, India & London, UK**

Technical Specialist (Health and Life Science) Oct 2016 – Ongoing

- ❖ Technical Lead and Architect (Deep Learning/ Machine Learning, Image Processing, Optics, Systems Engineering)
- ❖ Managed project team and communications with customers



➤ **Azoi Inc, Ahmedabad, India**

Lead R&D Engineer

Aug 2014 – Sept 2016

- ❖ Lead the team of young R&D engineers as well as validation engineers
- ❖ Developed algorithms, designed proof of concept for health tracking device



➤ **National Brain Research Centre, Gurgaon, India**

Senior R&D Engineer

Dec 2011 – Aug 2014

- ❖ Researcher in Neuro-Imaging and Neuro-Spectroscopy Lab
- ❖ Research Topic: Functional MRI (fMRI) based investigation of visuospatial perception as diagnostic biomarker in patients with Alzheimer's disease.



➤ **Cognizant Technology Solutions, Bengaluru, India**

Programmer Analyst

Aug 2009 – Aug 2010

- ❖ Software developer for telecom domain. Language: C++, PowerBuilder



Cognizant

Publications and Conference Proceedings

- ❖ **Jitesh Joshi**, Nadia Bianchi-Berthouze, and Youngjun 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.
- ❖ **Jitesh Joshi**, Bhavesh Shaha, Gaurav Singh, Deep-learning based enumeration of bacterial colonies, July 2019, Techforum at leading US based conglomerate
- ❖ **Jitesh Joshi**, Sumiti Saharan, Pravat K. Mandal, BOLDsync: A MATLAB-based toolbox for synchronized stimulus presentation in functional MRI, Journal of Neuroscience Methods, Volume 223, 15 February 2014, Pages 123-132, ISSN 0165-0270, DOI-10.1016/j.jneumeth.2013.12.002.
- ❖ Pravat K mandal, **Jitesh Joshi**, Sumiti Saharan, “Visuospatial Perception: An Emerging Biomarker for Alzheimer's Disease”, Journal of Alzheimer's Disease, 2012. DOI-10.3233/JAD-2012-120901

Patents

- ❖ Detecting a condition for a culture device using a machine learning model, 2021.
- ❖ Imaging device with illumination components, 2021.
- ❖ Compensation of intensity variances in images used for colony enumeration, 2021.

Awards and Recognitions

- ❖ Project Excellence Award, Tata Elxsi, 2020; Project: Deep-learning based enumeration of bacterial colonies; Role: Technical Architect and Project Manager
- ❖ Customer Appreciation Awards at Tata Elxsi, 2019 and 2017
- ❖ Won as a Team: Hackathon, May 2019, Tata Elxsi, Pune: AI-based medical image enhancement tool
- ❖ Won as a Team: [Tata Innovista](#), 2018 (Piloted Technologies and Intersection of Materials, Biology & Computing) for presenting - Point of Care Diagnostic Device for Malaria and Sickle Cell Disease
- ❖ Special prize - Nirma-Labs Young Techno-Entrepreneur Awards, Nirma University, 2007 for presenting - LADAR Model for Terrain Mapping and Ranging using LASER scanning. Team size – 5

Course Work and Certifications

- ❖ Courses: Research Methods and Making Skills (UCL, 2021); Affective Computing (UCL, 2021); Executive Data Science Specialization (Coursera, 2019), Deep Learning Specialization (Coursera, 2018); Machine Learning (Coursera, 2013); System Design, Integration and Control; Advanced Interface Design; Real Time Interaction; Research Methodologies; Image and Video Processing (Coursera, 2013)

Proficiency with Programming, Tools and Platforms

- ❖ Key AI Techniques: Deep-learning, Semantic Segmentation, Generative Adversarial Networks, Contrastive Learning, Object Detection and Tracking.
- ❖ Programming - Python, C/C++, MATLAB
- ❖ Development Frameworks: Pytorch, Tensorflow, OpenCV, Pandas, Qt, Unity, Android, Arduino
- ❖ Other Tools: Git, JIRA, Microsoft Office Tools, Microsoft Project Planner

Contact Details

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