Praveen Kumar Chandaliya Ph.D, Postdoc

Curriculum Vitae

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RESEARCH AREA

Biometrics, Face Recognition, Deep Learning, Computer Vision, Generative Al

EDUCATION

Postdoc Norwegian University of Science and Technology, Norway, (Feb 2023-Feb 2024).

Research European Commission funded project: iMARS: image Manipulation Attack Resolving Solutions

Associate Supervisor: Prof. Kiran Raja, Prof. Raghavendra Ramachandra and Prof. Christoph Bush

Ph.D Malaviya National Institute of Technology Jaipur, Computer Science & Engg, (2017-2022).

CGPA: 8.33

Thesis: Child Face aging and rejuvenation with Generative Adversarial Networks

Supervisor: Dr. Neeta Nain

M.Tech Malaviya National Institute of Technology, Jaipur, Computer Science & Engg, (2011-2014).

CGPA: 6.95

Thesis: Image processing for the Quality Assessment of food grains using Parallel Programming

Supervisor: Dr. Neeta Nain

B.Tech Institute of Technology & Management Bhilwara, Computer Engineering, (2003-2007).

Affiliated to University of Rajasthan, Jaipur

Percentage: 71.42%

VISITING SCHOLAR- (PRIP Lab, Michigan State University)

Sep. 2019- Michigan State University, Michigan, USA.

Nov 2019 Designation:- Research Scholar

Adviser: Distinguish Prof. Anil Kumar Jain

Project: Child face aging and cross-age face recognition

EXPERIENCE- (ACADEMICS - 8.6 YEARS, RESEARCH - 6.4 YEARS)

Feb 2023- Norwegian University of Science and Technology, Norway.

Feb 2024 Designation:- Postdoc Research Associate

Aug 2022- The LNM Institue of Information Technology, Jaipur.

Jan 2023 Designation:- Assistant Professor

Jan 2020— Malaviya National Institute of Technology, Jaipur.

Aug 2022 Designation:- Senior Research Fellow, Ministry of Electronics and Information Technology, Govt of India

Jan 2011 – Poornima Institute of Engineering and Technology, Jaipur.

Jan 2017 Designation:- Assistant Professor.

Subject Taught:- C++, J2EE, Web Technology, Cloud Computing

Nov 2008- Suresh Gyan Vihar University, Jaipur.

Jan 2011 Designation:- Lecturer

Subject Taught:- C, OOP's, JAVA, PPL, DBMS.

PROJECTS WORKED ON

Title: iMARS: image Manipulation Attack Resolving Solutions, Europen Union, NTNU, Norway

Description: iMARS is a research project funded by the European Commission, started in September 2020 for 48 months. The use of counterfeit travel documents at borders is a reality, which entails the risk of not identifying known criminals, including terrorists, or previously unknown subjects, such as

victims of human trafficking.

Contribution WP5.2: Assessment of human expert capabilities to detect manipulations.

to iMARS WP11.1: Assessment and improvement of ISO/IEC 29794-5 face image quality.

deliverables: WP5.3: Presentation attack detection mechanism for face capture.

Title: Child Face age progression and regression to trace missing children, MeitY, Govt India

Description: This project is based upon work supported by the Ministry of Electronics and Information Technology (MeitY), Government of India, under Grant No. 4 (13)/2019-ITEA. We present a new large-scale Longitudinal Indian Child (ICD) benchmark dataset to facilitate face age progression and regression (FAPR) and cross-age face recognition (CAFR). We proposed generative adversarial network based frameworks such as SAMSP and ChildGAN make a significant contribution to society by reuniting missing children with their loved ones.

Tools: Python, Pytorch, Tensorflow

PUBLICATIONS

Journal Papers

- 2023 **Praveen Kumar Chandaliya**, Neeta Nain, "AW-GAN: Face Aging and Rejuvenation using Attention with Wavelet GAN", Journal of Neural Computing and Applications Springer, ISSN. 1433-3058, vol. 34, 2023, pp. 1-14, (IF=5.16).
- Praveen Kumar Chandaliya, Neeta Nain, "ChildGAN: Face Aging and Rejuvenation to Find Missing Children", Journal of Pattern Recognition Elsevier, vol.129, ISSN. 0031-3203, 2022, pp. 108761, doi: https://doi.org/10.1016/j.patcog.2022.108761 (IF=8.51).
- Praveen Kumar Chandaliya, Neeta Nain, "PlasticGAN: Holistic Generative Adversarial Network on Face Plastic and Aesthetic Surgery", Journal of Multimedia tools and Applications Springer, ISSN: 1573-7721, vol. 81(9), 2022, pp. 1-22, doi: https://doi.org/10.1007/s11042-022-12865-5 (IF=2.76).

International Conference

- 2023 **Praveen Kumar Chandaliya**, Kiran Raja, Raghavendra Ramachandra, Christoph Busch "Unified Face Image Quality Score based on ISO/IEC Quality Components", IEEE BIOSIG, Darmstadt, Germany, 2023, pp. 1-6.
- 2023 **Praveen Kumar Chandaliya**, Kiran Raja, Snehal Rajendra, Neeta Nain, Raghavendra Ramachandra, Christoph Busch "MuSTAT: Face Ageing using Multi-Scale Target Age Style Transfer", IAPR CVIP, Jammu, India, 2023, pp. 1-12. (Best paper award)
- 2022 **Praveen Kumar Chandaliya**, Zahid Akhtar, Neeta Nain, "Longitudinal Analysis of Mask and No-Mask on Child Face Recognition", ACM ICVGIP 2022, IIT Gandhinagar, India.
- 2021 **Praveen Kumar Chandaliya**, Neeta Nain, "Child Face Age Progression and Regression using Self-Attention Multi-Scale Patch GAN", IEEE IJCB/CVF, Shenzhen, China, 2021, pp. 1-8.
- 2020 **Praveen Kumar Chandaliya**, Aditya Sinha, Neeta Nain, "ChildFace: Gender Aware Child Face Aging", IEEE BIOSIG, Darmstadt, Germany, 2020, pp. 1-5.
- 2019 **Praveen Kumar Chandaliya**, Neeta Nain, "Conditional Perceptual Adversarial Variational Autoencoder for Age Progression and Regression on Children Face", IEEE ICB, Crete, Greece, 2019, pp 1-8.

- 2019 **Praveen Kumar Chandaliya**, Vardhman Kumar, Mayank Harjani, Neeta Nain, "SCDAE: Ethnicity and Gender Alteration on CLF and UTKFace Dataset", In Proceedings of International Conference on Computer Vision and Image Processing, Springer, Singapore, 2019, pp-294-306.
- 2018 **Praveen Kumar Chandaliya**, Preyas Garg, Neeta Nain, "Retrieval of Facial Images Re-Rendered with Natural Aging Effect using Child Facial Image and Age", SITIS, Spain, Nov 26-29, 2018, pp. 457-463.

TECHNICAL SKILLS

Programming Python, J2SE, J2EE, C/C++

Framework Pytorch, Tensorflow, Keras, Hibernate, Struts2.0

DL Generative Adversarial Network, Diffision Models, Transfomers, CNN, RNN, LSTM

Dev. Tools Anaconda, Git, Eclipse, Net-Beans, LATEX

CERTIFICATION

- 2008 Sun Certified Java Programmer (SCJP) with 83%
- 2009 Sun Certified Web Component Developer (SCWCD) with 94%

WORKSHOPS/ TRAINING

- 2023 Workshop on Face Image Quality, 7-9 Nov 2023.
 Towards a Unified Quality Score Based on Aggregated Quality Components, NTNU, Norway
- 2022 **SERB sponsored Karyashala (High-end Workshop)**, *12-18 Dec 2022*. Open Source Scientific Document Preparatory Tools, IIIT Kota, Jaipur
- 2021 **Selected for Doctoral Consortium**, *15-18 Dec 2021*.

 International Conference on Automatic Face and Gesture Recognition, Jodhpur, India.
- 2020 Poster Presentation.

International Summer School for Advanced Studies on "Biometrics Forensics and Identity Science for Human-Centered Applications", Alghero, Italy.

- 2017 Workshop on Deep Learning and Machine Learning, 16 20 Dec 2017. Bennett University Noida, India
- 2017 **Medical Imaging Techniques, Post Processing and Clinical Applications**, *14 16 April*. IIT Delhi
- 2017 Short Term Training Program on Medical Signal and Image Processing-II., 22-27 May 2017 NIT Raipur.
- 2017 **Biometrics and Privacy Protection Workshop at MNIT, Jaipur**, (*Duration: 5 Days*). Workshop at MNIT, Jaipur
- 2016 Hand's on Hadoop in Association with EMC2, (Duration: 5 Days). Workshop at Manipal University, Jaipur
- 2015 **Mission10X Faculty Training program**, (*Duration: 1 Week*). Faculty Development programme by Wipro Technology
- 2014 Hand's on Web Application Development Using Spring Framework, (Duration: 5 Day). Faculty Development programme by Infosys, Chandigarh at SKIT, Jaipur

Google Scholar

https://doi.org/10.1016/j.patcog.2022.108761