RAJATHA

Brief Profile:

I am Rajatha, an Assistant Professor in the Department of Computer Science and Engineering with eight years of experience in academia. My core areas of interest include Computer Vision, Deep Learning, and Machine Learning, with a particular emphasis on medical image processing and diagnostic applications. I am currently pursuing my Ph.D. in the field of Computer Vision, where my research focuses on developing intelligent and efficient deep learning models for medical diagnostics. My academic journey is driven by a strong commitment to advancing research and innovation at the intersection of healthcare and artificial intelligence.

Faculty Photo

Personal Information

• Name: Rajatha

• **Designation:** Assistant Professor

• Department: CSE, R V College of Engineering

• Email: rajatha@rvce.edu.in

GoogleScholar: : https://scholar.google.com/citations?hl=en&user=3R9TjNEAAAAJ

ResearchGate: https://www.researchgate.net/profile/Rajatha

ORCID: https://orcid.org/0000-0002-1659-6174

Scopus:https://www.scopus.com/authid/detail.uri?authorId=57926852200

Domain of Expertise

Research Focus

- Primary Area: Computer Vision, Deep Learning and Machine Learning
- Allied Areas:
 - o AI in Health care
 - o AI in Medical Imaging

Academic Qualifications

• **Ph.D.**:(Pursuing)

M.Sc./M.Tech: CSE, VTU, 2027
B.E./B.Tech: [ISE,VTU,2024
Postdoctoral Research: NA

Professional Experience

| Experience | | | |
|------------|---|---------------------|---------------------|
| S.No | Institute/College/Industry | Job Title | Duration (From- To) |
| 1. | Sahyadri College of Engineering and Management, Mangalore | Assistant Professor | Aug 2017- May 2019 |
| 2. | SJB Institute of Technology,Bangalore | Assistant Professor | Aug 2019- Jan 2024 |
| 3. | RVCE, Bangalore | Assistant Professor | Jan 2024 onwards |

Publications & Patents

Journal Publications

- 1. Rajatha, D.V. Ashoka," *EffiViT: Hybrid CNN-Transformer for Retinal Imaging*", Computers in Biology and Medicine, Elsevier, Volume 191, April 2025, 110164, ISSN 0010-4825, (Scopus, Cite-Score 2025-11.7, Impact Factor: 7.8, Q1) https://doi.org/10.1016/j.compbiomed.2025.110164.
- 2. Rajatha, Ashoka Davanageri Virupakshappa, *Unveiling visionary frontiers: a survey of cutting-edge techniques in deep learning for retinal disease diagnosis,* Indonesian Journal of Electrical Engineering and Computer Science, vol 33, No 2, Feb 2024, ISSN :2502-4752, (Scopus, CiteScore 2022: 2.9, SNIP 2022: 0.528, SJR 2022: 0.272, Q3) http://doi.org/10.11591/ijeecs.v33.i2.pp1261-1272
- 3. Mr. Ganaraj K, Ms. Jayapadmini Kanchan, Mrs. Rajatha, Mrs. Shwetha S Shetty, Mrs. Madhura N Hegde, *e-health: An efficient Mobile Healthcare System for COVID-19, Gradiva review Journal*, vol9, issue-3, 2023, (pp363-375) https://doi.org/10.37897.GRJ.2022.V913.22.50876 (Scopus-q4)
- 4. Mohammed Shaibaz Allam , Mohammed Iyead, Puneeth Sagar, Mrs. Rajatha," Smart Vehicle Service Management System Using IoT",vol 10, IJRASET,2022 http://dx.doi.org/https://doi.org/10.22214/ijraset.2022.44767
- 5. Rajatha, Savitri Kulkarni, Dr. Krishna A.N,"Gaze based smart eye tracking system for password authentication",IJIRET, **Volume** 10, **Pages** 438- 444, **Year** 2021 http://dx.doi.org/10.15680/IJIRSET.2021.1001077
- 6. Rajatha, nirosha, preemal varsha pinto, punitha j shetty, rithika m r, "An integrated framework to identify different psychological behaviour of a human being", IRJET, Vol5, **Pages** 4123-4126, Year 2018
- 7. Rajatha, ChaitraAcharya," A case study on various network security tools", IJMTER, Vol 5, Year 2018, Pages 156-161, http://dx.doi.org/10.21884/IJMTER.2018.5155.6NNKW
- 8. Rajatha, Shrikanth N G," Improving the performance of AOMDV with local repair and energy conservation mechanism", International Conference on Advances in Engineering-IJMTER, Volume 5, Year 2016, Pages 285-290

Conference Papers

1. S. Kulkarni and Rajatha, "Innovative Approach to Detect Sugarcane Diseases with Discrete Fourier Transform and Deep Learning," 2024 IEEE 11th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON), Lucknow, India, 2024, pp. 1-6, doi: 10.1109/UPCON62832.2024.10983675.

2. Rajatha and S. Kulkarni, "Automated Multiclass Classification for Ocular Disease Diagnosis Using Deep Learning," 2024 8th International Conference on Computational System and Information Technology for Sustainable Solutions (CSITSS), Bengaluru, India, 2024, pp. 1-6, doi: 10.1109/CSITSS64042.2024.10816815.

Books/Book Chapters

- 1. Rajatha, Asha B. Shetty, Madhura N. Hegde, Jayapadmini Kanchan, K. Ganaraj, <u>A Study on Teaching-Learning Practices in the Era of COVID-19 Pandemic</u>, 2023 Global Higher Education and the COVID-19 Pandemic: Perspectives, Challenges, and New Opportunities (1st ed.). Apple Academic Press. https://doi.org/10.1201/9781003328582 (Scopus)
- K. Ganaraj, C.S. Ashwini, Rajatha, Sumiksha Shetty, Babitha, <u>A Review of the COVID-19 Pandemic Impact on Higher Education Globally</u>, 2023 Global Higher Education and the COVID-19 Pandemic: Perspectives, Challenges, and New Opportunities (1st ed.). Apple Academic Press. https://doi.org/10.1201/9781003328582 (Scopus)
- 3. Madhura N Hegde, Madhu R, Jayapadmini Kanchan, Shwetha S Shetty, Ganaraj K. Rajatha A book chapter titled "Digital tools to promote formative assessment in the classroom" FOR ED TECH ECONOMY AND TRANSORMATION OF EDUCATION, IGI-GLOBAL, June 2022 DOI:10.4018/978-1-7998-8904-5 (Scopus)
- 4. Madhura Hegde, Ganaraj K, Asha Shetty, Jayapadmini Kanchan, Rajatha, A book chapter titled "Bio Entrepreneurship Globally", for Bio Entrepreneurship and Transferring Technology into Product Development, IGI Global, Year 2021, Pages 272-287 http://dx.doi.org/10.4018/978-1-7998-7411-9

Patents [Filed / Published / Granted]

- 1. Automated Waste Segregation with visual recognition -Published (06/09/2024)
- 2. AI- based advanced technique to treat domestic sewage in water bodies and real time monitor using sensor integrated usv (unmanned surface vehicle) -Published (12/11/2021)

R & Grants & Consultancy Projects : NIL

Ongoing & Completed Research Projects :NIL

Ongoing & Completed Consultancy Projects:NIL

Professional Memberships

ISTE, IAENG, IFERP

Awards & Recognitions

- Achieved Elite with Silver certificate for "Foundation of Cloud IoT Edge ML", Feb-Apr 2025
- Achieved Elite with Silver certificate for "Google Cloud Computing Foundations", Aug-Oct 2024
- Topper (among 5%) in NPTEL "Introduction to IOT" Jan-Apr 2021
- Certification of Appreciation for being recognized as **NPTEL Discipline Star** Jan-Apr 2022
- Achieved *FIRST PLACE* for presenting the paper "AOMDV-LRE: An Enhancement for AOMDV with local repair and energy conservation scheme" in "SYSTOSPARK" held on 18th April 2016 at Mangalore University.

• Achieved *THIRD PLACE* in "SAMSHODHAN'16", a project exhibition held by Shree Devi Institute of Technology, Kenjar, on 6th May 2016.

Student Supervision

• Ph.D. Candidates: NIL

• M.Tech/M.Sc. Students: NIL

• Undergraduate Research Mentees: 07

Professional Roles

Reviewer:

- 10th International Conference on Communication and Signal Processing ICCSP 2024
- 8th IEEE International Conference on Computational Systems & InformationTechnology for Sustainable Solutions (CSITSS)-2024
- International Conference on Communication and Smart Devices (ICCSD-2025)

Teaching

Core Courses: [Current Semester]

- Introduction to Cyber Security [CS124BTF]
- Universal Human Values [HS248AT]

Advanced/Lab Courses:

PIC Lab, Web Programming Lab, OS Lab, DAA Lab

Professional Roles

Responsibilities

• Academic: Exam Unit Coordinator for 2025-2027.

External Connect -NIL