Pawan Rama Mali

Research Scholar in Computer Science & Engineering

Lead R Shiny Developer • *Applied Analytics* • *Clinical Data Systems*

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Professional Summary

Experienced Lead Developer and Research Scholar specializing in production-grade R Shiny applications and advanced analytical platforms. Expert in building scalable, regulatory-compliant solutions for clinical and healthcare analytics. Strong background in R and Python development, API integration, CI/CD-driven deployments, and automated testing. Proven track record of leading teams, mentoring developers, and delivering robust, maintainable, and user-centric analytical systems.

Education

Ph.D. in Computer Science & Engineering   Ongoing
Indian Institute of Technology Dharwad   Roll No: CS24DPX11
CGPA: 8.58
Coursework: Statistical Pattern Recognition • Deep Learning • Pattern Recognition Lab • CSE Seminar

M.Tech. in Artificial Intelligence   2022
REVA University   86.7% – First Division with Distinction

B.Tech. in Aerospace Engineering   2016
Hindustan Aviation Academy, IGNOU   72% – First Division

Higher Secondary (12th)   CBSE – 2011 – 72%
Secondary (10th)   CBSE – 2009 – 90%

Professional Experience

Technical Consultant   2024 – Present
Techworkslab

- Leading design and development of advanced R Shiny applications for enterprise and healthcare clients
- Consulting on R and Python package development with emphasis on reusability, documentation, and testing
- Implementing CDISC SDTM standards and regulatory-compliant clinical workflows in R
- Designing scalable API integrations and championing CI/CD pipelines for automated deployment

R Shiny Developer   2022 – 2023
Appsilon

- Developed and deployed production-grade R Shiny dashboards with focus on performance and UX
- Built modular R packages and implemented robust automated testing frameworks
- Integrated Shiny apps with external APIs and real-time data sources

Technical Lead   2016 – 2022
AERODESIGN Solutions Pvt. Ltd.

- Led end-to-end development of data visualization and analytics frameworks using R and Python
- Mentored development teams and designed automated pipelines for data processing and reporting

Data Analyst   2013 – 2014
First Advantage

- Performed statistical analysis on large datasets and automated data collection workflows

Technical Skills

Languages:	R, Python, SQL, JavaScript
Frameworks:	R Shiny, Plumber, Flask, FastAPI, Django
Analytics:	Data Visualization, Statistical Modeling, Machine Learning, Deep Learning
DevOps & Tools:	Docker, GitLab CI/CD, Git, Linux, PostgreSQL, MongoDB
Standards:	CDISC SDTM, ADaM, R Markdown, Knitr, Quarto

Selected Projects

Clinical Trials Reporting System – Designed R-based architectures for SDTM, ADaM, and TLG generation with automated report production using R Markdown and CI/CD pipelines.

R Package Ecosystem – Developed internal R packages including *autotestpkg* for unit testing automation and *Rmarker* for automated documentation.

Healthcare Analytics Platform – Built real-time dashboards using R Shiny and AWS with RESTful APIs for ML predictions.

Open Source Contributions

shinypayload – *CRAN Published R Package*

- R package enabling seamless POST request integration into Shiny applications on the same port
- Features: token-based authentication, reactive data streams, cross-session data sharing
- Production-ready with 132 comprehensive tests and cross-platform compatibility

Certifications & Courses

DeepLearning.AI

- Machine Learning Specialization
- Deep Learning Specialization
- NLP Specialization
- TensorFlow Developer Certificate

Professional & LinkedIn

- Project Management – Vskills
- AutoCAD Certified – Autodesk
- Deep Learning with Keras
- AI for Cybersecurity

Research Interests

Deep Learning • Computer Vision • Machine Learning • Natural Language Processing • Pattern Recognition

References available upon request