RUCHIR KALOKHE

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CAREER OBJECTIVE

Aspiring AI/ML engineer passionate about deep learning and quantum computing, seeking opportunities to build innovative solutions for real-world challenges.

EDUCATION

PES Modern College of Engineering (PES MCOE)   **Pune, India**
Bacheclors of Engineering, Artificial Intelligence and Data Science   Aug 2023 – Jun 2027

Hutchings High School & Junior College   **Pune, India**
High School Diploma, Graduation Year: 2021   Sep 2008 – May 2021
- Percentage: 84%

PROJECTS

MineX (Collaborator) - Smart India Hackathon 2025
- Developing AI-driven Life Cycle Assessment (LCA) tool for advancing circularity and sustainability in metallurgy and mining
- https://github.com/PurveshMali/MineX

SAR Image Colorization - Smart India Hackathon 2024
- Implemented PyTorch and GAN-based model to colorize grayscale SAR images into realistic RGB representations
- Trained on paired SAR-optical datasets with custom generator, CUDA support, and TensorBoard visualization
- https://github.com/ruxir-ig/SAR-Image-Colorization

VERBALIZE Lip-Reader
- Built deep learning model with TensorFlow for lip reading from video inputs, enabling silent speech recognition
- https://github.com/ruxir-ig/VERBALIZE_Lip-Reader

Quantum Key Distribution (QKD) Simulator
- Developed TypeScript/Next.js implementation for web-based BB84 protocol simulation focusing on cryptographic security (https://github.com/ruxir-ig/QKD_sim)
- Python implementation using Streamlit and IBM Qiskit to model secure quantum communication protocols (https://github.com/ruxir-ig/qkd-sim-py)

GitGet Backend (Collaborator)
- Contributed to TypeScript-based backend for Git repository management tool, enhancing API functionalities
- https://github.com/NevroHelios/gitget-backend

Fresh Blog (Collaborator)
- Co-created technical blog showcasing AI, ML, and software engineering write-ups and project documentation
- https://github.com/aryamaddel/frsh

EXTRA CURRICULAR ACTIVITIES & ACCOMPLISHMENTS

- **Smart India Hackathon 2025** - Participant developing MineX project
- **Smart India Hackathon 2024** - Developed SAR Image Colorization solution
- **HackRx Hackathon** - Mentored team project ranked Top 200
- **Open Source Contributor** - Active collaborator on multiple GitHub projects

SKILLS

- **Soft Skills:** Communication, Collaboration, Problem-solving, Adaptability, Time Management
- **Programming Languages:** Python, C++, JavaScript, TypeScript, React
- **Frameworks & Tools:** PyTorch, TensorFlow, Qiskit, Jupyter Notebook, zsh, Oh My Posh, Streamlit, Next.js, Gradio, LangChain
- **Domains:** AI/ML, Quantum Computing, Deep Learning, Data Science, Web Development