

Prabhat Vilas Karlekar

Aspiring SDE with 3+ years of experience in software development and quality assurance. Skilled in software testing, with hands-on ML, cryptography, blockchain, and CI/CD DevOps practices. Proven ability to build secure and scalable solutions in Agile environments. An Active collaborative team player, passionate about driving product excellence and secure, robust systems with forward-thinking innovative SDE teams.

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EXPERIENCE

Centre for Development of Advanced Computing (C-DAC)

Pune, MH

• Project Engineer – HPC I&E

Oct 2024 - Present

- R&D of encryption algorithms and blockchain solutions, integrating cryptographic techniques, federated learning, Model training (RNNs-LSTMs/GRU) using **Keras**, **TensorFlow** integrating **Homomorphic Encryption** to enhance security and scalability.
- Strengthened **ISO/IEC 27001** certification through internal and external audits, ensuring compliance with security standards.

Skills: C/C++, Python, Blockchain, SDLC, ML, NumPy, Pandas, sklearn, Linux Fundamentals, Makefile, Bash/Sh, HPC

Reliance Jio Platforms Limited

Navi Mumbai, MH

• JioCloud – Quality Analyst

Dec 2023 - Sept 2024

- Developed and executed **Test Plans** and scenarios across manual and API testing, optimizing workflows with automation tools.
- Collaborated in **Agile** workflows with cross-functional teams to streamline testing processes, improving feature delivery timelines and overall testing efficiency.

• Graduate Engineer Trainee

Dec 2022 - Nov 2023

- Collaborated across teams to resolve complex bugs, driving faster issue resolution and enhancing user experience.
- Adapted to changing project requirements while ensuring timely, high-quality results in a fast-paced environment.

Skills: STLC, CharlesProxy, Agile Methodologies, DevOps, Log Analysis, UAT, Bug Reporting, Knowledge Sharing, Test Cases

EDUCATION

B. Tech (CSE) - DBATU Lonere, MH

9.06 CGPA / Jul 2018 - Aug 2022

XII - Computer Science - MSBSHSE

62.15% / Apr 2017 - May 2018

X - Science - CBSE

9.8 CGPA / Apr 2015 - May 2016

SKILLS

Programming Languages: Python, C/C++, Bash/Shell Scripting, Rust Basics

Other Skills: DSA, GitHub & Gitlab, Computer Networking, Postman, Pytest, Mongoose, Smart Contracts, SHA, OpenFHE

PROJECTS & PUBLICATIONS

Privacy-Preserving Quantum Secure Federated Learning based on Multikey CKKS HE

May 2025 - Oct 2025

- Built a privacy-preserving framework integrating FL (time-series ML models), Homomorphic Encryption on HPC for secure, large-scale data processing across distributed systems, mitigating privacy and regulatory concerns.

Time-Series Machine Learning on HPC

May 2025

- Evaluate LSTM and GRU models for time-series forecasting through hyperparameter tuning and feature engineering using real stock market data, these techniques improve model performance and generalizability across varying heterogeneous conditions.

Blockchain via Stealth Addresses: PKI Approach

Nov 2024

- Explores the implementation of stealth addresses in blockchain technology, examines cryptographic foundations and demonstrates how stealth addresses enable unlinkable and untraceable transactions, addressing privacy challenges in decentralized network

Blockchain Based E-Voting System

Jul 2021 - Jul 2022

- Developed a blockchain-based e-voting web application system so that voters can securely vote from anywhere there is an Internet connection which prevents tampering as blockchain is publicly verifiable and distributed.

EXAMS & CERTIFICATIONS

Machine Learning for Cyber Security

Oct 25 / C-DAC Hyd

Agile Project Management | Foundations: Data, Data, everywhere | Introduction to Git & GitHub | The Bits & Bytes of Computer Networking | Crash Course on Python

Feb 23 - Oct 23 / Google - Coursera

Linux Fundamentals | Python Programming

Jun 23 - Jul 23 / Coursera

Blockchain Essentials | Introduction to DevOps | Data Analysis with Python

Oct 22 - Sept 23 / IBM - Coursera