

# Subhadra Mishra

Site Reliability & Automation Engineer — Cloud — Distributed Systems — QA — DevOps

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## Education

**Indiana University Bloomington**, *Masters in Computer Science (GPA: 3.6/4.00)*, **May 2025**

**Relevant Courses:** Cloud Computing, Advanced Databases, Networks, Big Data, Algorithms, Software Engineering

**IIT Guwahati**, *Masters in Mathematics and Computing (GPA: 7.25/10)*, **May 2018**

**Relevant Courses:** Programming, Data Structures, Probability & Statistics, Linear Algebra

## Technical Skills

**Programming:** Python, Java, JavaScript/TypeScript, C/C++, SQL, R, HTML5, CSS, Bash/Shell

**Cloud & DevOps:** AWS (ECS, EC2, S3, IAM), Docker, Kubernetes, Terraform, Jenkins, GitHub Actions, CI/CD, Linux/Unix

**Systems & Infrastructure:** Load Balancing, Monitoring, Logging, Nginx, Scalability, Incident Response, Observability

**Data & Analytics:** MySQL, PostgreSQL, MongoDB, ETL, Dask, Pandas, Power BI, Tableau, Query Optimization

**Security & Networking:** TCP/IP, DNS, HTTP, Firewalls, IDS/IPS, IAM, OAuth2.0, 2FA, Compliance, Encryption

**QA & Development:** Pytest, Selenium, Automated UI/API Testing, React.js, Node.js, Django, Flask, REST APIs, Agile/Jira

## Experience

**Handshake AI Solutions LLC**, *AI Model Evaluation & Annotation Analyst (Contract)*, **Aug 2025 – Present**

- Designed adversarial prompts to induce failure across 3-model LLM pipelines, benchmarking outputs against sub-40% thresholds to evaluate reasoning robustness and hallucination behavior.
- Developed structured scoring rubrics and conducted systematic failure analysis on multi-step workflows, identifying edge cases and delivering feedback to improve model reliability and alignment.

**WTIU/WFIU (PBS/NPR Station)**, *Broadcast Systems Engineer & Production Data Analyst – IUB*, **Jun 2024 – Present**

- Maintained **99.9% uptime** on 5 broadcast channels by managing IP-based master-control systems (NControl, BlackMagic, NGest), implementing proactive monitoring and automated alerting for hardware and network faults.
- Built Python + Power BI pipelines processing **150+ daily log events** to automate compliance QA, detect anomalies, and generate scheduled insights dashboards that improved on-air data accuracy and reporting speed.
- Enhanced incident response and SLO monitoring (ProTrack/XPlorer/NView), reducing MTTR via faster alert triage.

**Indiana University Bloomington**, *Graduate Teaching Assistant – Security for Networked Systems*, **Aug 2024 – Dec 2024**

- Led labs for **100+ students** on cryptography, IDS/IPS, firewalls, and secure protocols; developed hands-on exercises and guided incident management simulations to reinforce network defense principles.

**MyEdMaster, LLC**, *Software Developer – Herndon, VA*, **Jun 2024 – Aug 2024**

- Optimized SQL queries and API endpoints improving data retrieval time by **20%**; stabilized CI/CD via GitHub Actions.
- Resolved npm dependency issues and refined Git branching strategy, improving code versioning, deployment reliability, and cross-team productivity by **25%**.

**Bartleby Technologies Pvt. Ltd.**, *Senior Technical Subject Matter Expert – Bangalore, India*, **Jul 2019 – May 2023**

- Developed **Pytest automation frameworks** for web and API validation, integrated with CI pipelines to enable parallel test execution and improve release quality by **40%**.
- Designed and optimized PostgreSQL schemas and SQL dashboards, automating data workflows that improved reporting efficiency and decision turnaround by **30%**.
- Built a scalable **Node.js onboarding utility** for 300+ users, automating account setup, permission management, and system configuration, cutting manual setup time by **50%**.

## Projects

**CI/CD Automation Platform** 🐙 | React, Node.js, Docker, GitHub Actions **2025**

- Built a full-stack CI/CD automation platform using Dockerized Node.js services and React UI to simulate end-to-end pipelines for build, test, and deployment, showcasing real-world DevOps orchestration and workflow automation.
- Integrated **Pytest** regression suites with GitHub Actions and designed monitoring dashboards to track build health, test coverage, and deployment latency, improving overall release visibility and QA efficiency by **30%**.

**Scalable Cloud Analytics Platform** 🐙 | AWS, Dask, Terraform **2024**

- Provisioned cloud-native infrastructure on **AWS ECS + EFS** using **Terraform**, orchestrating distributed Dask clusters for large-scale data analytics and automated workload scaling with IAM-based access control.
- Optimized end-to-end ML pipelines by **71%** (18.9s → 5.44s) through task parallelization and caching; implemented observability pipelines for latency, resource utilization, and fault tolerance monitoring via metrics dashboards.

**GHC RSVP Tracker** 🐙 | React, TypeScript, Tailwind **2025**

- Engineered a responsive **React + TypeScript** web application for managing GHC company events and RSVP statuses, featuring dynamic search, filtering, and one-click calendar export (ICS) integration.
- Deployed on **GitHub Pages** with build optimization and lazy component rendering, achieving fast load times, mobile responsiveness, and seamless user interactions across devices.

**More projects at:** [subhadra-mishra-iub.github.io](https://subhadra-mishra-iub.github.io)