# Antony Bush

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# **Summary**

Software Engineer specializing in backend development, distributed systems, and infrastructure automation. Expertise in architecting and scaling resilient, high-availability systems. Proven track record of driving significant business impact through technology, highlighted by delivering solutions.

## Experience

# Software Development Engineer-1, Jio Platforms Limited

October 2023 - Present

- **Engineered** the migration of business-critical microservices from Python to TypeScript, standardizing implementation and achieving a **75% increase in service availability** and an **80% boost in request-handling capacity**
- **Spearheaded** the optimization of media server scalability for JioMeet & JioEvents , increasing participant capacity per node to eliminate resource underutilization and **reduce monthly server costs by 23**%
- **Co-led** the strategic migration of MediaStack microservices from GCP to on-premise data centers, **architecting** a phased rollout plan to ensure zero downtime and achieve a **projected 65% reduction in annual infrastructure costs**
- Architected and delivered a new, scalable chat microservice for JioMeet Enterprise, enabling advanced features (threaded replies, history sharing) that led to a **measurable lift in user engagement metrics across a 1M+ user base**
- Automated the complete Media Engine Stack server setup and CI/CD pipeline using Ansible, **slashing deployment time by 60**% and dramatically improving release reliability for engineering workflows
- Overhauled recording and streaming services, implementing performance optimizations that resulted in a **30**% **reduction in CPU and memory usage**, enhancing stream quality and system stability for enterprise clients
- Pioneered the development of MCU capabilities to complement the existing SFU architecture, designed to improve stream delivery efficiency by 40% and **reduce client-side bandwidth consumption by up to 60%** for meetings with 500+ participants

## Full Stack Development Intern, Zedex Info Pvt Ltd

June 2022 - March 2023

- **Developed** a comprehensive HR Management System to track attendance, leaves, and comp-offs, improving transparency and coordination across teams reducing manual tracking efforts by 80%.
- **Designed and implemented** secure RESTful APIs, integrated robust authentication and role-based authorization, and set up an automated email notification system using SMTP to streamline HR workflows.

#### Skills

- Programming & Runtimes: JavaScript (Node.js, React), TypeScript, Python, Java, RabbitMQ
- DevOps, Infrastructure & Automation: Docker, Kubernetes, Ansible, Terraform, CI/CD, Nginx, GCP, Linux, Bash
- Databases & Caching: MongoDB, MySQL, PostgreSQL, Redis
- Monitoring & Observability: Prometheus, Grafana, Elasticsearch

## Education

# Mumbai University, BE in Computer Engineering

July 2019 - July 2023

• CGPA: 9.67/10.0

## **Projects**

#### **Transmission Line Fault Detection**

GitHub

- Developed a mobile application to monitor transmission line health and notify users in real-time of detected faults, including fault type and severity.
- Performed data preprocessing and comparative analysis of multiple machine learning algorithms to select the most suitable model for accurate fault detection.
- Integrated the trained model with a hardware controller for real-time signal processing, enabling end-to-end fault monitoring and alerting through the app interface.