

Anirudh Srinath Belwadi

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SUMMARY

I am a software development engineer with a Master's degree from Carnegie Mellon University and hands-on experience designing, building and operating scalable distributed backend systems in production environments. I have a strong proficiency in Java and Python and practical experience using AWS, GCP and Azure DevOps cloud services. I am experienced in system performance optimization, reliability engineering and implementing high-throughput, low-latency services. I have a proven track record of owning features end-to-end, from system design and implementation to deployment, monitoring, and production support while collaborating effectively with cross-functional teams.

EDUCATION

Carnegie Mellon University

Master of Information Systems Management (GPA: 3.60)

Pittsburgh, United States of America

August 2024 – December 2025

- **Courses:** Cloud Computing, Distributed Systems, Advanced Relational Database Management, Object Oriented Analysis & Design, Web Application Development, Database Management, Object Oriented Programming in JAVA, NoSQL Database Management, IT Project Management, Agile Methods
- Recognized for academic excellence through placement on the Dean's List upon graduation

Mumbai University

Bachelor of Engineering in Computer Engineering (GPA: 3.73)

Mumbai, India

June 2018 – June 2022

- Built a technical community of 400+ engineers, while being the Campus Lead for Google Developers Student Clubs
- Tech Head at Indian Society for Technical Education (ISTE), Tech Coordinator at Institution of Electronics and Telecommunication Engineers (IETE)
- Awarded "Most Enterprising Student" Award in the First Year, 2018 - 2019
- Awarded "Student of the Year" Award in the Final Year, 2021 - 2022

SKILLS

- **Programming Languages:** Java, Python, TypeScript, C
- **Backend & Systems:** Distributed systems, microservices, REST APIs, event-driven systems, serverless systems
- **Cloud & Infra:** AWS (Lambda, SQS, SNS, DynamoDB, RDS, EC2, CloudFormation, CloudWatch), GCP (Compute Engine, Cloud Storage), Docker, Kubernetes
- **Databases:** MySQL, PostgreSQL, Oracle SQL, SQLite, Redis
- **Tools & Testing:** Git, GitHub, CI/CD, GitFarm, Linux, JUnit, Postman, IntelliJ IDEA, Visual Studio Code

EXPERIENCE

Amazon.com Inc.

Software Development Engineer Intern

Bellevue, United States of America

May 2025 – August 2025

- Designed and built a serverless, event-driven distributed system using AWS Lambda, SQS & SNS to decouple compute-intensive workloads from latency-sensitive APIs
- Reduced p99 API latency by ~90% by introducing an asynchronous precomputation pipeline to reliably handle 200K+ requests/hour under peak production traffic
- Implemented fault-tolerant processing guarantees using retries, dead-letter queues and idempotency controls to handle message duplication, partial failures, and downstream service outages
- Redesigned DynamoDB data models and access patterns to eliminate hot partitions, improve throughput predictability and reduce infrastructure costs at scale
- Drove design reviews and production-readiness discussions, contributing to decisions around scalability limits, failure modes, observability, and operational excellence

Reliance Jio Platforms Limited

Assistant Manager - Software Development Engineer

Mumbai, India

July 2022 – April 2024

- Designed and developed Java Spring Boot microservices powering a large-scale consumer platform, MyJio, with 500M+ users
- Built horizontally scalable backend services for authentication, user data management and service orchestration, with a focus on low latency and high availability
- Improved system reliability and debuggability by implementing structured logging, service health checks and production monitoring to detect and diagnose failures
- Collaborated with product, frontend, and platform teams to define stable API contracts, support staged rollouts, and ensure safe production deployments
- Investigated and resolved performance bottlenecks and availability issues in distributed services by analyzing logs, metrics and system behavior under load

Manufacturing Futures Institute

Software Development Engineer Intern

Pittsburgh, United States of America

September 2025 – December 2025

- Designed and implemented a polyglot persistence architecture with a unified Retrieval API spanning PostgreSQL, AVEVA PI (time-series), key-value stores, and object/file storage, enabling independent schema evolution and optimized access across heterogeneous manufacturing workloads
- Built scalable backend services and database connectors in Python (Flask) to expose metadata, historian, and file-system data via RESTful APIs, supporting time-series analytics and end-to-end trial lifecycle tracking
- Defined data models, API contracts, and indexing strategies to improve query performance, consistency, and reliability across storage backends
- Collaborated with researchers and engineers to productionize data pipelines for large-scale manufacturing experiments

PROJECTS

Pittsburgh2Peers

Student Resources Application (pittsburgh2peers.vercel.app)

Muscat, Oman

July 2024

- Built a full-stack web platform using React and Flask to coordinate campus relocation logistics, handling concurrent user workflows and backend API orchestration
- Scaled onboarding to 300+ active users in one week, validating system stability under rapid traffic growth

Gulf Services & Industrial Supplies LLC

Inventory Management System (gsistesting.pythonanywhere.com)

Muscat, Oman

June 2022 – July 2022

- Designed and implemented a Python + SQL based inventory system to track 25K+ SKUs across 18 locations, automating transactional consistency and audits
- Reduced annual audit effort by ~300 hours through automated reconciliation and data validation pipelines

Harvard Office for Sustainability

Assembly Performance Analyzer Tool (assemblyperformance.pythonanywhere.com)

Mumbai, India

April 2022 – May 2022

- Developed a data-driven web application integrating an ML inference pipeline and relational database to analyze assembly designs and estimate carbon impact
- Optimized data ingestion and query flows to support repeatable, low-latency analytical workflows

AWARDS AND ACHIEVEMENTS

AEC Hackathon @ BLOXHUB, Copenhagen

LearnCarbon (learncarbon.github.io) (bit.ly/LearnCarbonResearchPaper)

Copenhagen, Denmark

October 2021

- Built a Rhino plugin using machine learning to predict Global Warming Potential (GWP) from abstract building designs at early design stages
- Won "Best Project to Solve a Major AEC Problem" among 13 finalist teams
- Authored a technical research paper and presented the work at the eCAADe 2022 Conference (Belgium)

Covid-19 National Bioinformatics Online Hackathon for Full Stackers

KASH: COVID Awareness & Safety Hub Application (github.com/covidtracker192/KASH)

Mumbai, India

April 2020 – May 2020

- Led a team of three full-stack developers to build an Android application supporting public health workflows during the pandemic
- Ranked in Top 10 teams nationally; delivered features including real-time alerts, testing center discovery, emergency contacts, and a healthcare worker interface for test result management