BHUSHAN LADDE

Senior Software Engineer — Core Java · Python · AI/LLM · Data Structures & Algorithms · Networking · Distributed Systems

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Oracle Certified Java Programmer | Work authorization: H-1B — transfer required | Available immediately

PROFESSIONAL SUMMARY

- **13+ years building internet-scale backend systems (8+ years hands-on production Java/J2EE, 4+ years Python)** across media measurement, financial services, enterprise device platforms, and industrial infrastructure — a fundamentals-first core engineer, not tied to any one framework.
- Deep **Core Java**: collections, generics, streams & lambdas, JVM concurrency & multithreading — applied to a distributed matching platform processing **25M+ records inside a 30-minute SLA**, absorbing **4x traffic spikes at 99.9% uptime** through parallelism-first design.
- Strong **data structures & algorithms** foundation: DAG/task-dependency design, graph and queueing models, back-pressure and failure isolation, complexity-driven optimization; 1st place, ACM Programming Contest, Graduate Division (2016 & 2017).
- Hands-on **networking and protocol-level engineering**: TCP/IP inter-device communication for globally deployed fleets, socket-level debugging, REST/SOAP/GraphQL service contracts, XML/JSON interchange.
- Working **Core Python** fluency (pipelines, tooling, Pytest) plus production experience in C++ and C#; database engineering across PostgreSQL, Oracle 11g, SQL Server, MySQL; Docker/Kubernetes/Terraform, CI/CD, Datadog.
- Hands-on **AI/LLM adoption**: introduced GenAI-assisted engineering (Claude Code, GitHub Copilot) into Nielsen's development and code-review workflow, accelerating implementation cycles; built LLM-powered applications — AI helpdesk chatbot (NLP/LLM), Chrome summarizer extension, AI chatbot agent.
- **Interview expectation:** strongest coding-interview language is **Java**; equally comfortable delivering production work in **Python, C++, or C#**.

TECHNICAL SKILLS

Core Java: Java / J2EE — collections, generics, Optional, streams & lambdas, concurrency & multithreading, JVM tuning, JNDI/JDBC pooling

Core Python: data processing pipelines, scripting & automation, Pytest, Airflow DAG development

Data Structures & Algorithms: graphs/DAGs, queues, hashing, trees, complexity analysis; design patterns — pub-sub, back-pressure, retries, failure isolation

Networking: TCP/IP protocol-level communication, inter-device messaging, REST API design, SOAP, GraphQL, XML/JSON interchange

Other Languages: C++, C#, SQL, JavaScript/TypeScript, Node.js, HTML/CSS, Bash

AI Engineering: Claude Code, GitHub Copilot, LLM application development, AI agents, Google Gemini 2.5, ChatGPT-4o, TensorFlow

Frameworks & Messaging: Spring Core, Spring Boot, Spring MVC, Spring-JPA, Spring Security, Spring Web Services, Hibernate, Struts MVC, ActiveMQ/JMS

Databases: PostgreSQL, Oracle 11g, SQL Server, MySQL — schema/index design, stored procedures, query tuning; MDL OLAP, Parquet, AWS S3 data lake

Cloud, Build & Quality: AWS (S3, EC2), Docker, Kubernetes, Terraform, WebLogic; Git/GitHub/GitLab, Maven, GitHub Actions; TDD (JUnit, Pytest), peer code review, Datadog observability; OS: Linux/Unix, Windows, Mac

PROFESSIONAL EXPERIENCE

Senior Software Engineer — Nielsen Holdings
Mar 2022 – Jul 2026

Internet-scale media measurement platform · distributed processing, data infrastructure, production ownership

- Architected and led a **3-pipeline Exposure Matching System** (Exposure Warehouse, Supplier Warehouse, 3-DAG Matching Pipeline) orchestrated on Apache Airflow, serving a major enterprise media measurement platform.
- Scaled to **25M+ records within a 30-minute SLA across 10–50 campaigns/day**; designed DAG structure and task-dependency graphs to maximize parallelism and minimize retries — classic algorithmic reasoning (topological ordering, back-pressure, failure isolation) applied in production.
- Built historical-norms ingestion engineered to absorb **4x traffic spikes while sustaining 99.9% uptime**.
- Delivered self-service analytics over AWS S3, MDL OLAP, and Parquet spanning 4+ heterogeneous sources, unblocking **100+ business analysts**; implemented data-quality and validation checks throughout the pipeline.
- Cut deployment cycle time **from 1 hour to 30 minutes** integrating Linear TV feeds; **reduced operating costs $2M+ annually** via pipeline optimization and automation; created a new revenue-generating line of business through a matching-pipeline extension for a major media client.
- Stood up SLA/data-freshness monitoring and alerting; owned incident response end to end; presented architecture and design trade-offs to cross-functional engineering and leadership audiences.
- Recognized with Nielsen's **Copper Award (2025)** and **Silver Award (2022)**; introduced GenAI tooling (Claude Code, GitHub Copilot) into team development and code-review workflow.

Environment: Java, Python, Apache Airflow, AWS S3, MDL OLAP, Parquet, PostgreSQL, Docker, Kubernetes, Terraform, Datadog, CI/CD

Software Engineer II — BARCO Oct 2018 – Mar 2022

Cloud-native remote device management platform · 50,000+ global users · Java, C++, embedded Linux, TCP/IP

- Engineered a cloud-native platform for remote device management serving **50,000+ global users at 99.8% availability**, owning key modules end to end.
- Developed a **TCP/IP-based intranet communication solution** for inter-device messaging across globally deployed fleets, **reducing troubleshooting time by 20%** — protocol-level design, socket communication, and low-level debugging.
- Built **custom Linux device drivers** and extended the hardware abstraction layer; debugged driver/firmware interaction defects with embedded and hardware teams.
- Optimized system-level control algorithms for device cooling — **+15% fan efficiency, −12% power consumption** across the product line.

Environment: Java, C++, embedded Linux, TCP/IP, Qt, Git/SVN

Software Engineering Internships — BARCO · KPMG · Sacramento County DHHS · CSUS Jan 2016 – Aug 2018

Concurrent with MS in Computer Science, CSU Sacramento

- **KPMG:** built an AI-powered helpdesk chatbot (NLP/LLM), **reducing support ticket volume by 20%**; BARCO: VESA calculator tool automating design validation (−20% review time); DHHS: survey-processing optimization (−20% response time); CSUS: university web portal for 5,000+ students.

Staff Consultant — Oracle Financial Software Services Aug 2014 – Dec 2015

FlexCube Direct Banking (FCDB), North America · high-integrity financial transaction systems

- Delivered **mobile banking integration for First Global Bank (Jamaica)** on Oracle's FCDB platform; built the XML/XLS integration layer between FCDB and mobile banking modules in Core Java and Spring Boot on WebLogic.
- Maintained loan-processing and funds-transfer modules handling **$1M+ daily transaction volume at 99.99% accuracy**; **Java multithreading optimizations delivered a 5% performance gain**; authored and tuned Oracle 11g stored procedures; primary technical point of contact for the client engagement.

Environment: Java, J2EE, Spring Boot, Multithreading, SOAP/XML, Oracle DB 11g, WebLogic

Associate Consultant — Bristlecone (Mahindra Group) Aug 2013 – Aug 2014

Supply-chain and dealer management platforms · full-stack Java / Spring delivery

- Built scalable Java microservices and RESTful APIs integrating Mahindra backend systems with supply-chain partner platforms; delivered a full-stack inventory platform **cutting manual order processing by 70% and latency by 25%**.
- Designed database schemas and stored procedures for **1,000+ SKUs** with multi-role access control; configured JNDI/JDBC connection pooling against SQL Server; recognized with Bristlecone's **Star Performer Award (2013)**.

Environment: Java, Spring Boot, Struts MVC, REST APIs, JSP, jQuery, SQL Server, JNDI/JDBC

Software Engineer — SNE Engineers Pvt Ltd Jan 2012 – Aug 2013

Water Infrastructure Management System (WIMS) · real-time monitoring & analytics platform

- Developed WIMS, a hybrid standalone/web platform monitoring water flow, pressure, and frequency across a GIS map with real-time range-violation alerting; built real-time graph monitoring services (JSON web services, Spring MVC, JSP/Servlet) integrated directly with hardware devices.
- Bridged a **C# front end to the Java back end via Spring Web Services**; implemented Spring Security with LDAP authentication; wrote JUnit test cases for core modules across Scrum cycles.

Environment: Java, Spring MVC, Spring Security, Spring Web Services, LDAP, JUnit, JSP/Servlet, C#, MySQL

INDEPENDENT PROJECTS | GITHUB PORTFOLIO

- **Chrome Summarizer Extension** (Claude Code, JavaScript) — AI-powered content summarization tool improving reading efficiency by 20%.
- **AI Chatbot Agent** (Java, GitHub Copilot, NLP) — intelligent conversational assistant for automated customer service tasks.

EDUCATION

- **Master of Science, Computer Science** — California State University, Sacramento (Jan 2016 – Dec 2018)
- **Bachelor of Engineering, Computer Engineering** — University of Pune, India (Aug 2007 – May 2011)

CERTIFICATIONS, AWARDS & RECOGNITION

- **Oracle Certified Java Programmer**
- **Copper Award (2025)** & **Silver Award (2022)** — Nielsen Holdings, for engineering impact and delivery excellence
- **Star Performer Award (2013)** — Bristlecone, Mahindra Group
- **1st Place, ACM Programming Contest** — Graduate Division (2016 & 2017) | **Hacktech.io Winner (2014)** — Indoor Location Mapping