Dhruv Kachhadia

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EDUCATION

- **University of Wisconsin-Madison** — *Madison, WI*
  Master of Science in Computer Science (GPA: 3.83/4) — *Aug 2025 - May 2027*
- **National Institute of Technology, Tiruchirappalli** — *Tiruchirappalli, India*
  B.Tech, Computer Science and Engineering (GPA: 8.64/10) — *Jul 2019 - May 2023*

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Computer Networks, Machine Learning, Database Management Systems, Foundation Models, Big Data Systems, Distributed Systems

EXPERIENCE

- **Oracle Cloud - Big Data Service (BDS) Team** — *Jul 2023 - Aug 2025*
  Member of Technical Staff | Bangalore, India
  - Optimized Apache Bigtop build time by 75% (4h→1h), improving productivity and feature/bugfix cycles.
  - Key contributor in the design and development of Resource Principal Session Token (RPST) support for Big Data Service clusters. Implemented data plane APIs in Python Flask backed by Redis, to store RPST securely inside cluster with automated token recovery. Enhanced observability by extending ambari-metrics-monitor to report RPST status metrics.
  - Investigated and fixed customer-impacting bugs in core Big Data components such as Hadoop MapReduce, Oozie, and resolved patching-related issues in Big Data clusters often unblocking customer progress and ensuring smooth operations.
  - Implemented end-to-end automated tests with Pytest, for features and bug-fixes, improving test coverage and reducing manual validation effort.
  - Resolved critical CVEs across BDS components, improving security posture and ensuring compliance.
  - Contributed to Ranger KMS onboarding in BDS, enhancing Ambari frontend for smooth OCI Vault integration with Ranger KMS and defining end-to-end test plans.

- **Oracle Cloud - Fusion Data Lake team** — *Jun 2022 - Jul 2022*
  Software Engineering Intern | Bangalore, India
  - Designed and implemented a MergeInto Validator plugin in Scala using Apache Spark to validate MERGE INTO operations in Delta Lake and automatically resolve detected issues.
  - Delivered real-time validation reports and automated problem healing, reducing developer debugging time from 1 hour to under 10 minutes (83% improvement), significantly boosting productivity.

PROJECTS

- **Dalal Street** — *Cross-Platform App | Github - **dalal-street-client** | Dec 2021– Mar 2022*
  - Contributed to the development of a cross-platform client in Dart/Flutter, released on Android and Web, for Dalal Street, a stock market simulation game at Pragyan'22 with 500+ participants.
  - Implemented Bloc state management for modular and testable logic, and integrated front-end with back-end APIs (Go) via gRPC for real-time trading features.

- **Smart Note** — *Android App | Github - **smart-note** | Oct 2020 – June 2021*
  - Collaborated in a team to build a document-scanning Android app for an NGO supporting blind women, using MVVM architecture with Google Drive backup.
  - Integrated text recognition with Google ML Kit to automate page scanning and used SQLite Room database to manage scanned pages, books, and subjects with in-app PDF storage.

TECHNICAL SKILLS

- **Programming languages**: C++, C, Python, Java, Kotlin, Dart, Scala, Shell Scripting
- **Web and App Tech**: HTML, CSS, Javascript, Native Android, Flutter, Flask, gRPC, Emberjs, Ajax
- **Miscellaneous**: Git, Linux, MYSQL, Redis, Hadoop, Spark, Kafka, Cassandra, OCI, Docker, Pytorch
- **Coding Tools**: Aider, Claude code, Cursor, Visual Studio Code, VIM, Android Studio

ACHIEVEMENTS

- **Pragyan'21 Hackathon**   Best Tech-Stack Winner
- **Joint Entrance Exam, 2019**   Secured **All India rank 2120** in JEE Advanced and **1294** in JEE Mains.