

URMIL JATIN CHANDARANA

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EDUCATION:

University of California, Davis

Master of Science in Computer Science

Sept 2025 - Present

GPA: 4.0 / 4.0

Relevant Coursework: ECS 265: Distributed Database Systems; ECS 235A: Computer and Information Security; ECS 252: Computer Networks; ECS 273: Visual Analytics;

K.J. Somaiya College of Engineering, Mumbai

Bachelor of Technology, Computer Engineering

Aug 2018 – Jun 2022

GPA: 9.4 / 10

Relevant Coursework: Advanced Algorithms: Design and Analysis; Operating Systems; Full Stack Development; Computer Network; Blockchain; Cloud Computing Emerging Technologies.

WORK EXPERIENCE:

Graduate Student Researcher

Davis, California

University of California – Davis | Project AgML, PAIBL Lab | Advisor: Prof. Mason Earles

Apr 2026 – Present

- Designed and built an **automated VLM dataset ingestion pipeline** leveraging an **open-source reasoning model** that analyzes raw datasets, **generates schema mappings**, and convert outputs to **Parquet format** for direct upload to **HuggingFace**.
- Developed a **dataset benchmarking framework** across structural quality, content difficulty, diversity, and annotation reliability, producing a **leaderboard** to guide selection of future agricultural VLM benchmark datasets.
- Building a **prompt-translation module** combining work on **OFAT and combinatorial search** over an LLM/VLM to auto-generate optimal per-dataset, per-model prompts, **improving zero-shot object detection accuracy** for agricultural VLMs.
- Engineered large-scale data processing workflows (**600K+ samples**) on **SLURM-managed HPC infrastructure**, resolving PyArrow/HuggingFace pipeline bottlenecks for efficient dataset conversion at scale.
- Collaborated with dataset authors to formalize data-sharing agreements and integrate external agricultural datasets into the AgML ecosystem.

Associate Consultant (Software Development Engineer)

Pune, India

Oracle Financial Services Software Limited

Aug 2022 – Jun 2025

- Engineered 10+ core banking modules** for the Oracle Banking Digital Experience (OBDX) platform, using **Spring Boot, Java 8, REST APIs/SOAP APIs & Microservices** for a major European Bank.
- Streamlined DevOps pipelines, reducing manual intervention by 30%** using tools including **Jenkins & Gradle** and implemented automation guidelines to enhance team efficiency.
- Orchestrated the migration** from a frequent traditional application setup to a **containerized environment** using **CI/CD pipelines & Docker**, reducing environment setup and deployment time by **85%** while **achieving 100% environment parity** across SDLC stages.
- Spearheaded the development and delivery of critical modules**, including a Login system via CAS & Bill Payment Functionality, ensuring seamless integration under tight deadlines alongside collaborating with clients.
- Led 7 product patch set upgrades**, ensuring meticulous planning and error-free execution and **acted as a technical SPC (Single point-of-contact)** for client stakeholders.
- Optimized team efficiency by 75%** through **10+ technical enablement sessions** and multiple requirement workshops; successfully mitigated requirement-related bugs and accelerated the adoption of new product features.

TECHNICAL SKILLS:

Programming Languages	Java, C++, JavaScript, Python, SQL, TypeScript, HTML
Libraries & Frameworks	Spring Boot, Node.js, Django, FastAPI, Flutter, Next.js, React.js, Tailwind CSS
ML / Data	PyTorch, HuggingFace, PyArrow, Ollama, vLLM, Model Quantization, Scikit-learn
Tools / Cloud	Bazel, MongoDB, DynamoDB, Redis, Docker, Kubernetes, Git, GitHub Actions, AWS, Oracle Cloud
AI Coding Tools	Claude Code, Cursor

PROJECTS:

Localbite: Community-First Food Delivery Platform

Feb 2026 – Present

Python (FastAPI), TypeScript, SQL, Redis, Kafka, Docker, WebSocket, OAuth2, Tailwind CSS, Next.js, Cursor

- Architected a local-first food delivery ecosystem** to disrupt high-fee marketplaces, **reducing restaurant commission structures from 30% down to 8-12%** while keeping revenue within the Davis student community for **15,000+ potential local users**.
- Designed a Student-First phased dispatch engine** utilizing **Redis** for low-latency job queuing and **WebSocket** for real-time bidding; the system enforces a 4-minute exclusive window for student couriers before dynamically broadcasting to a wider pool.
- Implemented a robust identity layer** by integrating **UC Davis Kerberos** for institutional-grade student verification and **OAuth2/JWT** for role-based access, ensuring platform integrity and user trust.
- Developed an automated Payment Settlement & Ledger Service** via **Stripe**, managing complex multi-party split payments and real-time incentive multipliers (demand/weather) to ensure fair earnings for **800+ local delivery agents**.
- Engineered an asynchronous, service-oriented backend** designed for **event-driven scalability**, utilizing **Docker** to containerize microservices including a BaseFare calculation engine, payment settlement, and real-time notification service.