

# ANKIT CHAURASIA

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## EXPERIENCE

- **Senior Software Engineer, Astronomer - Remote, India** Jan 2022 - Present  
I have been leading several high-performing, delivery-focused full-stack engineering teams while operating as a senior individual contributor - driving architecture, cross-functional execution, and open-source innovation.
  - Spearheaded key features in [Apache Airflow 3.0 - AIP-83](#) (directly support new use cases, such as model training and generative AI inference), [AIP-72](#) (for multi-cloud and multi-language support), and built a [Ruff linter](#) and [config tool](#) for seamless 2.x to 3 upgrades. These contributions were pivotal to Astronomer's [\\$93M Series D funding](#).
  - Led development of [Astro Runtime](#) (Astronomer's production-grade Airflow distribution), managing 80% of [releases](#) with complex Airflow dependencies to ensure Day-0 customer support; engineered a new logging module to handle Airflow task logs via HTTP endpoints, slashing Docker image size by 80%.
  - Built [Ask-Astro](#), an open-source chatbot for Airflow and Astronomer, using generative AI; orchestrated documentation ingestion with Airflow and vector database embedding to enable real-time retrieval with feedback loops, showcasing practical LLMops.
  - Improved engineering efficiency by instituting nightly build workflows to catch regressions early (reducing manual testing by 90%) and establishing team-wide best practices for AI coding assistants (Cursor, GitHub Copilot) to boost developer productivity.
  - Developed [apache-airflow-providers-transfers](#), a unified interface replacing 100+ specialized data transfer operators, and co-created the [Astro Python SDK](#) to streamline ETL development by abstracting Airflow boilerplate.
  - Enabled deferrable mode for 80+ Airflow operators/sensors, freeing up worker slots during external waits (via lightweight async triggers) and reducing compute costs by up to 70%.
  - Impactful [130+ Open Source contributions](#) to Apache Airflow with new features, bug fixes, and documentation.
- **Senior Software Engineer, Wadhvani AI - Mumbai, India** Jan 2019 - Dec 2021  
Joined as first engineer and scaled a 25+ member team; led high-performing, delivery-focused teams while driving clarity with product and program teams
  - Designed, developed and deployed a pest management system which runs a pytorch based model on the phone/cloud to identify the harmful pests, alert farmers about infestation and reduce crop loss in cotton farming. Currently being used by over 11,000 farmers.
  - Part of the only Indian team to win a \$2 million grant in the [Google AI Impact Challenge](#), which recognized just 20 teams globally and was featured at Google I/O and Google for India.
  - Developed pipeline for data collection [ODK](#), annotation [LabelMe](#), model deployment (online on-cloud and offline on-device), analytics dashboard along with open APIs for third-party integration and Django backend.
  - Built annotation studio platform orchestrating annotation jobs across multiple vendors using Apache Airflow, FastAPI, and React, streamlining data management and scheduling workflows.
  - Developed reusable micro-services (authentication, geospatial directory, emailing) using Django, AWS, and OAuth 2.0, serving multiple teams and eliminating duplicate infrastructure.
  - Reduced video buffering time by 75% on open-source [CVAT](#) annotation tool by implementing Redis caching during data ingestion.
  - Built COVID-19 mobility dashboard integrating COVID-19 Mobility Data Network and Facebook Data For Good, enabling 11 state governments in India to optimize emergency protocols based on epidemic spread patterns.
- **Software Development Engineer, DreamVu - Hyderabad, India** Dec 2017 – Jan 2019
  - Developed end to end modular video acquisition and processing software for VR/AR and machine vision applications (for in-house camera) along with SDK for third party integration which helped to secure an angel funding of \$ 0.5 million from SRI capital.
- **Software Engineer, AapkaPainter - Bangalore, India** Aug 2016 – Nov 2017
  - Built CRM, task management, and sales automation systems; integrated Razorpay payment gateway processing 10M+ INR monthly; developed Flask API for automated floor plan measurement extraction using computer vision.

## SKILLS

- **Core:** Data Structures & Algorithms, System Design, Data Engineering, LLMops, Large Language Models, REST APIs, CI/CD
- **Languages:** Python (Proficient), C++ (intermediate), JavaScript, PHP, C, Java, Bash,  $\text{\LaTeX}$
- **Frameworks:** Apache Airflow, Django, FastAPI, Flask, LangChain, OpenCV, OpenLineage
- **Databases:** PostgreSQL, MySQL, MongoDB, Weaviate
- **Cloud & Infrastructure:** AWS, Azure, GCP, Docker
- **Tools:** Git, GitHub Actions, CircleCI, Swagger, Postman
- **Leadership:** Team Management, Technical Hiring, Mentoring, Architecture Reviews, Agile

OPEN SOURCE CONTRIBUTIONS

- [apache-airflow](#), [ask-astro](#), [ruff](#), [apache-airflow-provider-transfers](#), [astro-sdk](#), [astronomer-providers](#)

TALKS AND PUBLICATIONS

- [Beyond Execution Dates: Empowering inference execution and hyper-parameter tuning with Airflow 3](#) | Apache Airflow Summit 2025 Seattle
- [Seamless Airflow Upgrades: Migrating from 2.x to 3](#) | Apache Airflow Summit 2025 Seattle
- [Mastering Advanced Dataset Scheduling in Apache Airflow](#) | Apache Airflow Summit 2024 San Francisco
- [Data pipelines from ETL to ML to LLM: Powered by Apache Airflow](#) | Microsoft IDC Hyderabad 2023
- [Love for Writing Deferrable Operators — Why and How to Defer?](#) | Apache Airflow Summit 2022
- [Pest management in cotton farms: an AI-system case study from the global South](#) | KDD 2020 [Research Paper]
- [A real-time travel planning algorithm via multimodal transport network for ATIS](#) | B.Tech thesis 2016 [Thesis]

EDUCATION

• <b>B.Tech. Computer Science and Engineering</b>	2012–2016
• <i>National Institute of Technology Warangal, Warangal, India</i>	
• <b>Technology Entrepreneurship Programme</b>	2014–2016
• <i>Indian School of Business, Hyderabad, Hyderabad, India</i>	
• <b>Grade 12</b>	2011
• <i>SOS Hermann Gmeiner Higher Secondary School, Bharatpur, Nepal</i>	

ACHIEVEMENTS

- **Winner, Design Challenge, ISB Hyderabad** ([presentation](#)) – Founded award-winning startup building real-time position reporting system for buses without GPS; pitched to Telangana IT minister and received seed funding offer from TSRTC.

EXTRACURRICULAR AND LEADERSHIP

- **Coordinator, Quality Control & Management, Technozion 15** (Aug–Jan 2016) – Secured ISO 9001:2008 certification and UNESCO patronage for South India’s second largest technical fest; generated 1.5Cr INR (\$200k) revenue; managed 150+ events across coordination, quality control, and risk management.
- **Teach for India** – 70+ hours of teaching community service in local underrepresented schools.