

Austin Senna Wijaya

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EDUCATION

Columbia University

Bachelor of Science: Computer Science

New York, NY

Aug 2024 - May 2028

- GPA: 4.22/4.0; Full-Tuition Scholarship; Dean's List
- Relevant Coursework: Systems Programming, Data Structures & Algorithms, Natural Language Processing, Linear Algebra.

EXPERIENCE

Software Engineer Intern

Jun 2026 – Present

Garner Health

New York, NY

- Engineered a full-stack observability pipeline, automating **Grafana** provisioning through **Terraform**, unifying frontend/backend traces via **Datadog RUM** and **OpenTelemetry (Loki, Prometheus, Tempo)** for critical insurance workflows.
- Architected a **Kubernetes**-deployed, self-improving autonomous on-call triage agent with **Claude Agent SDK**, ingesting telemetry to perform root-cause analysis and create verifiable fix pull requests; resolved 10+ production incidents while enforcing privacy guardrails.

Data Agents Research Assistant

Dec 2025 – Present

Columbia Data, Agents, and Processes Lab

New York, NY

- Engineered a high-throughput benchmark evaluation harness in **Strands SDK**, utilizing parallel sandboxed **DuckDB/Python** runtimes for multi-agent question-answering pipelines incorporating skills, hooks, and context compaction.
- Processed **9.5 TB / 40M docs** of open-source tabular and textual data into an S3 data lake; built scalable BM25 and hybrid retrieval APIs utilizing **LanceDB** to support massive-scale source discovery for agents.
- Architected telemetry to capture tool-call traces and track agent reasoning to identify bottlenecks in agent framework, improving **GPT-5-mini** semantic match from **2.22%** to **56.3%**.

Data Engineering Intern

Jun 2025 – Aug 2025

Ruangguru (Indonesia's largest edtech platform)

Jakarta, Indonesia

- Engineered scalable ETL pipelines to aggregate millions of asynchronous payment events into structured session data using **BigQuery**, producing a product funnel to identify major checkout drop-off points.
- Architected an automated data scraping, ingestion, and sentiment analysis service utilizing **Puppeteer** and **Hugging Face** APIs, integrating the pipeline into live operational monitoring dashboards in **Looker Studio**.

PUBLICATIONS

- [1] *LakeQA: A Benchmark for Complex Exploratory QA over a Million-Scale Data Lake*, **ICML 2026**: Fourth author.
- [2] *SANA: What Matters for QA Agents over Massive Data Lakes?* **VLDB DASHSys 2026**: First author.
- [3] *MINA: Linear Probes Reveal Coding-Sequence Family Signal in Frozen DNA Encoders*, **isbAI'26**: First author.
- [4] *Targeted Embeddings: Neural Speech Encoding with Large Audio-Language Models*, **NeurIPS 2026**: Third author (*Under-review*).
- [5] *Be CARE-ful with Text-to-SQL Benchmarks*, **NeurIPS 2026**: Sixth author. (*Under-review*).

PROJECTS

ResearcherX: Local-First AI Research IDE

[Website](#)

- Spearheaded ResearchX, a local-first AI research editor with **Electron/Next.js/FastAPI** stack and graph-based RAG in **LanceDB** and **NetworkX** to produce cited answers and detect hallucinations or contradictions in AI writing.
- Engineered a real-time contradiction-linting engine that minimizes overhead via batched LLM calls and paragraph-hash caching, utilizing **Pydantic** to strictly validate conflicts surfaced through source-linked editor squiggles.

TECHNICAL SKILLS

- **Languages:** Python, SQL, JavaScript / TypeScript, Java, C++
- **AI & Data:** Strands Agents, Claude Agent SDK, Langchain, Pandas, NumPy, PyTorch, Puppeteer/Selenium, BeautifulSoup
- **Cloud & CI/CD:** AWS (EC2, S3, Bedrock), Google BigQuery, Grafana, OpenTelemetry, Kubernetes, Terraform, Gitlab CI
- **Web & App:** Next.js, React, FastAPI, Litestar, Tailwind CSS, Electron
- **Tools:** GitHub, Claude Code, Codex, Docker, Copilot, Notion

HONORS

- **Databricks Grounded Reasoning Cup 2026:** Columbia representative; worked with Google.
- **Jane Street Mystery Planet Trading & Puzzle Competition 2026:** 1st Place.
- **Hack@Brown 2026:** Finalist; Strongest Product Thinking award; worked with Google Ventures and Partiful.
- **Tencent Kepler Plan S3 Competition 2025:** 2nd Place; Best Code; Best Product Idea; Popularity Award.
- **Indonesia Maju Scholarship:** Full-ride scholarship recipient, 1 of 350 recipients.
- **55th International Chemistry Olympiad 2023:** Final stage, 10th rank for Indonesian national team selection.