Sriram Karthik Akella

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EDUCATION

University of Alberta   Edmonton, AB
Bachelor of Science - Computer Science   June 2025
Dean's Honor List 2020–21, 2021–22, 2022–23
Relevant Coursework: Data Analysis, Software Engineering, NLP, Algorithms, Artificial Intelligence

Technical Skills

Python, R, Java, SQL, NumPy, pandas, FastAPI/ Flask, Postgres, Redis, Firebase, MongoDB, Git

WORK EXPERIENCE

University of Alberta - Faculty of Medicine x AMII   Edmonton, AB
Research Programmer   May 2025 - Present
- Analyzing 911/811 call data using Python, R, and NLP to uncover mental health trends triggered by climate events.
- Built keyword extraction tools and models to detect spikes in anxiety-related calls during heatwaves & wildfires.

Ericsson   Toronto, ON
Software Engineer Intern (Data Engineering)   Sep 2023 – Apr 2024
- Wrote a Python script (Pandas + NumPy) that computed z-scores on network tower log metrics; pushed alerts via FastAPI/Slack webhook, trimming false alarms ~30% and speeding incident response by ~2 hours.
- Built an internal tool - vacation scheduler using FastAPI (Python) + React which was rolled out to ~1,400 Ericsson North American staff, automating approvals/reminders and eliminating most manual PTO related work.
- Designed and deployed Python ETL jobs for telemetry from ~500 radio towers, cutting ingestion time from 23 min → 15 min (~35%) through parallelized I/O and incremental loads.

City of Edmonton   Edmonton, AB
Software Engineer Intern   Jan 2023 – Aug 2023
- Wrote PowerShell scripts to bulk audit firmware/version compliance on 200+ switches and routers, reducing audit time from ~3 days to ~4 hours bi-weekly.
- Automated syslog parsing (Python + Pandas) for City of Edmonton's firewalls and switches, pushing high-severity events to JIRA and reducing detection-to-ticket time from hours to near real time.
- Built a Flutter app to scan equipment and push records to Firestore/BigQuery via Cloud Functions (Python), replacing forms and cutting down inventory update time.

Faculty of Computing Science, University of Alberta   Edmonton, AB
Teaching Assistant   Jan 2022 – Apr 2024
- Evaluated student assignments and exams for Linux and systems programming courses, ensuring fairness and accuracy.
- Collaborated with instructors to improve lab materials, enhancing the overall learning experience.

PROJECTS

info-seek Search Engine   June 2025
- Designed and built an end-to-end search engine in Python + Redis; implemented a web crawler (requests/BeautifulSoup) with URL normalization and deduping, stored document metadata in Redis hashes, and created an inverted index using Redis Sets for millisecond-level lookups and retrieval.
- Returns results with context-aware snippets by extracting and highlighting the exact matching segment from each page's text, so users see why a URL matches their query at a glance.
- Tech stack: Python (requests, BeautifulSoup, regex), Redis (redis-py)