GAUTAM SINGH

Software Developer | Python, TypeScript, Rust, AWS
Guelph, ON | Canadian citizen | (226) 979-6678 | gautamsingh2189@gmail.com | linkedin.com/in/gautam-singh-cs | github.com/Gautamstar | gautamstar.github.io/portfolio

EDUCATION

Bachelor of Computer Science (Honours) Sep 2020 - Dec 2025
Conestoga College *Waterloo, ON*

Google Advanced Data Analytics Professional Certificate Jun 2026

EXPERIENCE

Machine Learning Intern Aug 2026 - Present
Sphere Global *Remote*
Python, OpenCV, NumPy, PyTorch, YOLO, SAM 2.1

- Built the labeling team's daily Python tool to run on one CPU-only laptop, keeping customer photos on-site
- Built a generator that turns clean vehicle photos into YOLO-labeled damage at ~1 s per image on CPU, with pixel-exact masks
- Root-caused a labeling bug that mislabeled 39% of training images; added a YOLO vehicle check before SAM 2.1 segmentation

ServiceNow Developer & QA Specialist (Co-op) Sep - Dec 2024, Sep - Dec 2025
PAMT Consulting *Remote*
ServiceNow, App Engine Studio, Flow Designer

- Cut new-hire onboarding handling time ~30% by replacing a manual process with a Flow Designer workflow
- Wrote and ran test cases for workflows, integrations and APIs across dev, test and production
- Tracked down bugs in client builds and checked each fix in every environment before release
- Kept update sets organized and wrote up test results for the dev team

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, SQL, Rust, Java, C++
Backend & Frontend: FastAPI, Django, Node.js, React, REST APIs, Redis/RQ, Flutter, ServiceNow
Cloud & DevOps: AWS (Lambda, DynamoDB, CloudFront), Azure, Docker, Terraform, Linux, Git, GitHub Actions CI/CD, Cloudflare
Data & ML: PostgreSQL, MongoDB, Redis, Databricks, PySpark, PyTorch, scikit-learn, Pandas, OpenCV, YOLO

PROJECTS

FitFileSize fitfilesize.com | github.com/Gautamstar/fitfilesize
Python, FastAPI, Redis/RQ, React, TypeScript, Docker, MCP

- Built a web app, API and MCP server that shrinks PDFs and images in 7 formats to fit upload limits
- Cut a 5 MB photo from 9.2 s to 4.2 s in production by guessing the next setting from sizes already measured
- Added a watchdog that restarts stuck containers after failure drills showed deploys were killing jobs mid-run

Cairn d1fspum1n48e1s.cloudfront.net | github.com/Gautamstar/cairn
Rust, AWS Lambda, DynamoDB, CloudFront, Terraform

- Built cookie-free web analytics as a Rust binary on AWS Lambda with 5.1 ms warm and 184 ms cold responses
- Deployed the stack as 41 Terraform resources, live on three sites at zero cost when idle

Distill
Python, PyTorch, Qwen2.5-VL, FastAPI, Docker

- Raised invoice field accuracy from 80% to 97% by scoring confidence from repeated model runs and sending doubtful fields to a person
- Wrote 175 tests and a CI check that fails the build if a published accuracy number moves

The Almanac (Capstone) github.com/NolanMM/Capstones_Stock_Prediction
PyTorch, Django REST, Azure Data Factory, Databricks, Flutter

- Trained an LSTM in PyTorch to predict next-week stock returns, tested with walk-forward validation
- Sped up data loads ~35% by redesigning the storage layer of the Azure Data Factory and Databricks pipeline

OPEN SOURCE

actualbudget/actual github.com/actualbudget/actual/pull/8603

- Fixed a silent failure in actualbudget/actual so a password change with no password method returns an error (merged PR #8603)