Pankaj Pundir

Software Engineer III (L4) • Distributed Systems, Cloud Infrastructure & High-Throughput Storage

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Experience

Google — Hyderabad, India

Software Engineer III (L4) — Jun 2024 – Present

Storage Transfer Service — Oct 2025 – Present

- Architect large-scale migration pipelines transferring data from AWS S3, Azure Blob, and on-premises to Google Cloud Storage (GCS), supporting mission-critical multi-GB/s enterprise throughput.
- Engineered multi-tenant scheduling and rate-limiting algorithms to enforce bandwidth fairness, eliminate resource starvation, and guarantee 99.9%+ enterprise SLO compliance.
- Lead the AI Zone Transfer initiative, designing high-throughput data movement architecture targeting 1 Tbps for distributed AI training datasets, model checkpoints, and HPC filesystems (Lustre).
- Built automated AI-assisted incident triage and on-call diagnostics, reducing multi-region incident triage time.

Google Distributed Cloud Hosted (GDCH) — Jun 2024 – Oct 2025

- Engineered Go-based distributed backup and restore controllers managing Kubernetes resources, VMs, and persistent disks across secure, air-gapped enterprise environments.
- Implemented point-in-time recovery, crash-consistent volume snapshots, cross-cluster restoration, and retention policy enforcement, maintaining 99.99% backup reliability.

Groww — Bengaluru, India

Software Engineer II (Fintech / Lending) — Feb 2022 – Mar 2024

- Engineered low-latency, real-time digital loan application pipelines and integrated NBFC/banking partners (IDFC FIRST Bank, ABFL, GCS), scaling instant credit evaluation.
- Built business-rule engines for automated creditworthiness assessment and instant loan generation, reducing applicant drop-off while strictly meeting RBI compliance.
- Designed fault-tolerant asynchronous microservices with robust idempotent webhook callbacks and reconciliation workflows for loan disbursements.

BNY Mellon — Pune, India

Software Engineer — Jul 2020 – Feb 2022

- Developed scalable data-processing pipelines for regulatory financial compliance reporting using PySpark, Airflow, and Pandas, reducing batch processing execution windows.
- Built internal analytics dashboards and visualization services for automated validation of large-scale financial transaction records.

IIT Ropar — Punjab, India

Research Intern – Computer Vision & Machine Learning — May 2018 – Jul 2019

- Researched computer-vision algorithms for chart-image understanding (classifying charts, extracting plotted points, lines, bars, and textual data), resulting in peer-reviewed Springer publications.

Technical Skills

Languages: Go, C++, Python, Java, SQL, Bash
Distributed Systems & Cloud: Kubernetes, GCS, AWS S3, Azure Blob, gRPC, etcd, Microservices, High Availability
Data & AI/ML: PySpark, Apache Airflow, Pandas, Machine Learning, Computer Vision, Lustre/HPC, AI Agents
Core Competencies: System Design, Concurrency, Rate Limiting, Disaster Recovery, API Design, Performance Tuning

Projects

Cortex-Bot – Algorithmic Trading Platform — Python, Machine Learning, Broker APIs

- Architected an algorithmic trading platform combining technical indicators and ML models, featuring strategy backtesting on 5+ years of historical market data, trade analytics, broker execution, and real-time WhatsApp signals.

FigSense – Automated Graph & Chart Parser — Python, OpenCV, Deep Learning

- Engineered a CV pipeline to parse scientific charts and extract tabular series, coordinates, bars, and textual annotations directly from PDF research documents with high extraction fidelity.

Publications

- P. Pundir, A. Agarwal, and K. Kumar, "Swift Controller: A Computer Vision Based Mouse Controller," Springer, 2021.
- P. Pundir et al., "POCONET: A Pathway to Safety," Springer, 2021.
- P. Pundir, S. Aggarwal, and M. Deshmukh, "Malaria Detection Using Convolutional Neural Network," Springer, 2020.

Education

National Institute of Technology, Uttarakhand — 2016 – 2020

B.Tech in Computer Science and Engineering — **CGPA: 8.7 / 10.0**