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Ask Gaurav AI



↳ Targeting SWE Summer Internship

Gaurav Pandey.

Graduate student at Carnegie Mellon University with 3+ years of full time experience in developing distributed systems and leading production support for

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Experience.

Professional Evolution

Aug 2022 - Jul 2025

Epsilon, Datahub Product

Software Engineer

- Slashed multi-data object feed load times by 83% (30s to 5s) through async refactoring.
- Architected an AWS Bedrock prototype to enhance search capabilities on complex feed payloads.
- On-call primary support for Kubernetes microservice architecture resolving 80+ production issues.
- Streamlined AWS resource utilization by 60% by conducting architectural review of SnapLogic pipelines and deploying 5+ checkpoints.
- Delivered 120+ Jira user stories and managed NodeJS upgrades across 10+ AWS Lambda functions.
- Developed a TestNG automation suite for critical data feeds, increasing testing frequency from weekly to hourly.

Jan 2022 - July 2022

Epsilon

Software Engineering Intern

- Reduced infrastructure costs by 10% by developing a hard-delete backend API.
- Upgraded 70+ vulnerable libraries and remediated 500+ code quality issues.

May 2020 - Jun 2020

Centre for Cloud Computing

Research Intern - NLP

- Improved translation accuracy by 20% for Telugu ASR system using ESPnet models.
- Implemented data balancing strategy derived from phoneme frequency analysis.

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July 2019 - Oct 2019

ISRO

Research Intern - CV

- Developed satellite image segmentation using U-Net model for water body identification.
- Achieved 18% boost in model performance via advanced data augmentation.

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Projects.

Engineered Solutions



PythonAWSYOLOv3

Edge Surveillance Module

Designed an edge-based master/worker system to handle 10+ video streams, utilizing YOLOv3 for social distancing violation detection. Leveraged AWS Re

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ResNet50MLPython

Image Classification

Annotated 14k+ images into 8 classes using VGG Annotator & used ResNet50 weights for transfer learning. Applied Grad-CAM to produce class activation maps.

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PoseNetJS Transfer Learning

PoseNet Recognition

Leveraged PoseNet to track hand gestures during lectures, identifying blackboard text even with blurry inputs.

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Leadership & Activities

Community & Impact

Feb 2021 - Apr 2021

Google



Cloud Sprint

- Selected among 30 from 10,000+ applicants across India; Worked on open-ended problem statements weekly related to GCP.
- Designed system architecture of Twitter having ~300Mn users; Awarded runner-up by senior leadership for final presentation.
- Recommended location based sharding using Snowflake & memory caching on Amazon redis for managing latency within 1 sec.

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Sep 2019 - Jan 2022

PES Open Source (PESOS)



Core Technical Team

- Organized meetups for 200+ students about git & contributing to open source; Scheduled & organized HacktoberFest-19 at PES.
- Inducted cross-domain members and created pathways for collaboration on 4+ university level hardware & software projects.
- Selected junior core team members; Facilitated onboarding & mentored them to continue driving club initiatives independently.

Education.

Academic Background

Aug 2025 - Dec 2026

Carnegie Mellon University

GPA: 3.85 / 4

Master in Information Systems Management

Fall 2025

- NoSQL Database Management
- Object Oriented Programming in Java
- Decision Making Under Uncertainty
- Organisation Design and Implementation

Spring 2026

- Cloud Computing (15-619)
- Agentic Technologies
- AI Model Development
- Distributed Systems

- Measuring Social
- Digital Transformation

2018 - 2022

PES University

GPA: 3.94 / 4

Bachelor of Technology - Computer Science

Specialisation in Machine Intelligence and Data Science

Core Stack.

A specialized toolkit for cloud architecture and high-load backend optimization.



Top Honors

Runner-up @ Google Cloud Sprint

>_

Languages

Java Python JS C++ SQL



Infrastructure

AWS K8s Docker GCP Azure



Backends

Spring Node Kafka Spark



Dev Tooling

Jenkins Git Kibana SonarQube

Made with ❤ by Gaurav Pandey

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