

# Pallav Regmi

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## Education

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**University of New Mexico** – Albuquerque, NM

**Aug 2021 - July 2025**

Bachelor of Science in Computer Science; Minor in Mathematics

**Relevant Coursework:** Data Structures & Algorithms, Software Engineering, Operating Systems, Computer Networks, Machine Learning, Large Program Design, Declarative Programming, Computer Logic Design

## Relevant Skills

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**Languages:** Java, Python, Golang, TypeScript, JavaScript

**Frontend Development:** React.js, JavaFX, JSwing, HTML/CSS

**Backend & APIs:** RESTful API Development, GraphQL, Microservices Architecture, Service Integration

**Developer Platforms:** Internal Developer Tools, Developer Portals, Plugin Architectures, Service Catalog Concepts

**DevOps & Infrastructure:** Git, GitLab CI, Jenkins, GitHub Actions, Docker, Kubernetes, AWS CDK, Pulumi

**Cloud Platforms:** AWS (EC2, S3, Lambda, API Gateway, DynamoDB, Cognito, Step Functions)

**Observability & Testing:** Logging, Monitoring, Unit Testing, Integration Testing, BDD

**Security & Authentication:** JWT, OAuth2, OPA, Multi-tenant RBAC, AWS Cognito

## Relevant Experience

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### Member of Technical Staff, Software Engineering

**Panasonic Avionics Corporation** – Beaverton, OR

**Mar 2026 - Present**

- Designed and developed internal developer tools and automation services using Golang to streamline engineering workflows and improve developer productivity across distributed teams.
- Built and maintained REST-based platform APIs enabling seamless integration between internal services, CI/CD pipelines, and developer tooling systems.
- Built an AI-powered serverless DevOps platform leveraging RAG and embeddings to automate code reviews, generate CQRR reports, and analyze defect trends across repositories.
- Implemented CI/CD automation using Git-based workflows and Jenkins pipelines, reducing manual deployment tasks and improving build and release reliability.
- Developed reusable backend services and platform components following microservices architecture principles to support scalable developer-facing applications.
- Integrated AI-assisted development workflows using GitHub Copilot and OpenAI APIs to automate repetitive coding tasks and accelerate feature development.
- Collaborated with cross-functional engineering teams to identify developer pain points and deliver platform improvements that simplified development and deployment processes.
- Improved platform observability by implementing logging, monitoring, and diagnostic tooling to track service health and developer tool usage.
- Built SWE-AD, a serverless AI DevOps platform enabling automated code reviews, RAG-based Q&A, and defect analytics on AWS, reducing manual effort and standardizing quality across services.

## Projects

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### AI-Powered DevOps Automation Platform

**Panasonic Avionics Corporation**

**April 2026 - Present**

- Contributed to the development of an AI-driven DevOps platform to automate code review workflows by generating standardized Code Quality Review Reports (CQRR) for merge requests.
- Collaborated on building a retrieval-augmented generation (RAG) system to enable natural language question answering over repository code and documentation.
- Assisted in implementing vector-based code indexing with embeddings for accurate, context-aware AI responses.
- Participated in designing a serverless cloud architecture using AWS services (Lambda, API Gateway, Step Functions, DynamoDB, S3) for scalable, event-driven processing.
- Supported the integration of automated defect density analysis and feedback tracking to monitor code quality trends and improve review accuracy.

**Tech Stack:** Python, AWS Lambda, API Gateway, Step Functions, DynamoDB, S3, LangChain, Vector Embeddings, RAG

### Android Streaming Reference App

**Panasonic Avionics Corporation**

**Mar 2026**

- Developed an Android streaming client capable of playing HLS video streams using ExoPlayer with buffering optimization, fullscreen playback, and retry handling for stream failures.
- Designed a categorized video catalog UI supporting up to 10 videos with loading, error, and empty states.
- Implemented a repository-based architecture with mock data sources to enable seamless future integration with backend metadata APIs and MediaMTX streaming endpoints.
- Tested and validated the application on Android tablet emulators and mock backend with microcks as part of a reference media streaming platform.

**Tech Stack:** Java, Android SDK, ExoPlayer, HLS Streaming, Gradle, Git

### Solar GPS Extraction and Mapping Web Application

**American Solar Energy Society**

**Jan 2025 - May 2025**

- Volunteered to develop a web application that extracts GPS metadata from images, converts coordinates to decimal degrees, and accurately maps solar panel locations.
- Implemented automated processing of EXIF image headers to retrieve latitude, longitude, and altitude data for field documentation and analysis.
- Developed geospatial mapping workflows to visualize solar panel locations using extracted GPS coordinates.
- Enabled export of processed geospatial data into CSV, XLSX, and KML formats for integration with spreadsheets, GIS tools, and Google Earth Pro.
- Designed a scalable upload and processing pipeline to support batch image analysis for solar field inspections.

**Tech Stack:** Python, Flask, EXIF Metadata, Pandas, SimpleKML, HTML/CSS

## Awards And Honors

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**Dean's List**, University of New Mexico

**Dec 2023, May 2024, Dec 2024**

**International Amigo Scholarship**, University of New Mexico

**Aug 2021 - July 2025**

**High School Full Ride Scholarship**, Ministry of Education - Nepal

**May 2015 - May 2019**