

# Vasant Kumar Mogia

+91 9302609911 | vasant.mogia@gmail.com | github.com/DSCmatter | myportfolio.com

## EDUCATION

---

### Madhav Institute of Technology and Science

Bachelor of Technology in Information Technology, Expected Graduation: May, 2027

## EXPERIENCE

---

### Software Engineer Intern | Metry AI

Sept 2025 – Present

- Built a churn prediction model in Python using behavioral & historical data to detect early churn signals.
- Prototyped an automated retention system with DynamoDB and SES, delivering personalized re-engagement campaigns and reducing churn.

### Student Researcher | MITS Gwalior

July 2025 – Present

- Curated a dataset of 5,000+ images for computer vision classification.
- Trained a ResNet50-based classification model in TensorFlow and achieved up to 90% accuracy on test data.
- Integrated model predictions with nutritional fact sheets to generate calorie estimates.

## PROJECTS

---

### ExplainableDocs-AI (Hackathon) (Python, FastAPI, PostgreSQL)

- Built a ML pipeline using NLI to generate evidence-backed explanations for user claims.
- Designed PostgreSQL database for efficient claim-evidence storage and caching retrieval.
- Developed FastAPI backend to serve verdicts and explanations to users.
- Ranked 7th out of 30 teams in a state-level hackathon.

### MyRedis (Go, Bash)

- In-memory key-value store supporting RESP protocol and core Redis commands (HSET, GET, DEL).
- Implemented concurrent client handling with goroutines, enabling scalable multi-threaded performance.
- Added Append-Only File (AOF) persistence mechanism for crash recovery.

### WatcherX (TypeScript, Node.js, Express.js, GCP, Firebase, Docker)

- Deployed a containerized Cloud Run service for automated video downscaling to 360p.
- A secure REST API with Cloud Functions to handle authenticated video uploads.
- Leveraged Firestore for real-time tracking of video metadata and processing status.

### AWS Serverless Email Marketing (Lambda, SES, S3, EventBridge, IAM, Python, HTML, CSS)

- Serverless email marketing system on AWS, automating campaigns and reducing manual setup time.
- Optimized email template and content merging using Lambda, cutting prep time from hours to minutes.
- Automated email scheduling with EventBridge and enforced least-privilege policies using IAM roles.

## TECHNICAL SKILLS

---

- **Languages:** Python, C++, TypeScript, Go, HTML, CSS
- **Frameworks/Tools:** Node.js, Express.js, FastAPI, Docker, Git, Bash, Linux
- **Cloud & Databases:** AWS, GCP, Firebase, PostgreSQL, Redis