JWALITH MADHYAHNAPU

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SUMMARY

AI/ML and software engineering student at ABV-IIITM Gwalior and IIT Madras, with merged open-source fixes in Python libraries, MCP tooling, and web applications. Google Student Ambassador and AI Synergy Hackathon winner.

EDUCATION

ABV - Indian Institute of Information Technology & Management, Gwalior **Expected 2030**
Integrated B.Tech. + M.Tech., Information Technology | JEE Main 2025: **99.16 percentile (Top 1%)**

Indian Institute of Technology Madras **Ongoing**
Bachelor of Science (BS), Aeronautical & Space Technology

OPEN SOURCE CONTRIBUTIONS

Selected merged contributions **Oct - Nov 2026**

- **pydash:** Fixed concurrent `once()` calls, clock-sensitive debounce/throttle deadlines, and large-integer formatting precision; added regression coverage. PR #406 / PR #417 / PR #420.
- **pyjson5:** Fixed serialization of false-valued duck-typed mappings and restored the parser's error-tuple contract for empty input; added regression tests. PR #147 / PR #154.
- **OpenCollab MCP:** Unified blocking-label exclusions across issue-discovery tools; added regression coverage for query composition and label variants. PR #271.
- **Enigma Society website:** Restored browser tab history, removed vulnerable dependencies, and added security headers and 14 browser regression tests. PR #35.

EXPERIENCE

Selected Winter Intern | India Space Lab **Nov - Dec 2026**

- Selected for a 45-day online technical training program (2 Nov - 16 Dec) covering drones, CanSat/CubeSat, rocketry, remote sensing/GIS, and AI.

Google Student Ambassador | Google **2026 - Present**

- Engage students on Google technologies and AI; team shortlisted for the Google Cloud Build with AI: Code for Communities Virtual Finale and presented to judges.

Robotics & AI Industrial Trainee | My Equation **Nov - Dec 2025**

- Built Python/ROS simulations across 3 mobility scenarios with sensor-fusion pipelines; completed 45-day training with major and minor projects and a Robotics and AI endorsement.

SELECTED PROJECTS

Blackbox - Sequential Reciprocal Matching & Research Platform **Prototype**
Python, TypeScript, Node.js, SQLite, libSQL, Automated Testing

- Built a 200-member matching simulator with budgeted clarification, reciprocal constraints, and pair-level explanations; implemented ownership-isolated APIs, atomic revision checks, and idempotency.
- Compared matching policies across **240 paired simulated worlds (480 runs)** with baselines, ablations, waiting-time analysis, and reproducible artifacts; team reached the hackathon final round.

CropDoctor - Agricultural AI & Decision Support **Live Demo**

- Combined EfficientNet-Lite0/ONNX crop-health inference, FastAPI, multilingual voice, and irrigation reasoning; added model lineage, drift detection, calibration tracking, and human-in-the-loop labeling.

NEXUS - AI Decision Twin & Reality Intelligence **Live Demo**

- Built a decision-intelligence prototype using FastAPI, Gemini, and ChromaDB, with retrieval-grounded agent workflows, strategic assumption tracking, and decision graphs.
- Implemented tamper-evident prediction records; a focused verification check detected an altered record.

Additional: VERITAS - rational-constraint verification with CLI/API access and independently checkable certificates.

ACHIEVEMENTS

- **Finalist, The Sequential Matching Problem** - Romeo & Juliet x IIT Madras, team Blackbox; Oct 2026.
- **Winner, AI Synergy Hackathon** - Gwalior AI Summit 2026; **Virtual Finale Shortlist**, Google Cloud Build with AI, 2026.

SELECTED PROGRAMS

McKinsey.org Forward - Selected Participant, 2026
GCI World - Selected Participant, Sep 2026

CERTIFICATIONS

NASA Open Science 101 - Certificate of Achievement | Completed 24 Oct 2026
Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate | Jul 2025
AI Fluency: Framework & Foundations - Anthropic | 2026

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, C++, C, Java, SQL
AI/ML: Transfer Learning, ONNX, Model Calibration, Drift Detection, RAG, ChromaDB, Multi-Agent Orchestration
Backend and Data: FastAPI, REST APIs, Node.js, SQLite, libSQL, Authentication, Audit Logging
Engineering: Git, Automated Testing, Constraint Verification, Vercel, OCI, ROS, Sensor Fusion, Simulation