

# AMIT HATI.T

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## EDUCATION

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### MAHARISHI VIDYA MANDIR HIGHER SECONDARY SCHOOL

PCCM CLASS 12

Percentage: 72.6%

Hosur, India

2021 - 2022

### KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION

Computer Science Engineering B.Tech

CGPA: 6.64

Virudhunagar, India

September 2022 - April 2026

## EXPERIENCE

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### TITAN COMPANY LIMITED | Human Resources Intern

Hosur, India | May 9 - May 24 2025

- \* Assisted in documenting and updating employee data.
- \* Assigned tasks to colleagues and coordinated various events during the internship period.
- \* Coordinated monthly revenue meetings within the Supply Chain department, gaining valuable insights into company strategy while organizing employee recognition initiatives to boost engagement and performance.

## SKILLS

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Tools / Platforms: Power bi, Tableau, Atlassian Jira, Microsoft Office Suite, Vs code, Google cloud console

Databases: ANSI SQL

## PROJECTS / OPEN-SOURCE

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### Flight Information Dashboard

*Angular , Node.js, Express.js, Mysql, Rest API*

- \* Developed a full-stack flight information dashboard using a custom-built REST API to retrieve and serve airport data.
- \* Designed and normalized MySQL database schemas to store and manage major Indian airport information efficiently.
- \* Implemented secure and scalable Express.js API endpoints for reliable backend data access.
- \* Integrated the backend with Angular via service-based API calls, handling asynchronous data flow and state management.
- \* Built dynamic, responsive Angular UI components to display real-time airport and flight-related data.
- \* Configured CORS policies, implemented structured error handling, and optimized database connectivity and query performance.

### HydroNexus Hydroponic / Smart Irrigation Nutrition Monitoring System

*IOT and Embedded System*

- \* Designed and developed an IoT-enabled hydroponic/smart irrigation system for real-time monitoring and optimization of water and nutrient delivery at the root zone.
- \* Integrated soil moisture, nutrient (EC), temperature, pressure, and flow sensors with automated pumps and motorized valves for precision irrigation control.
- \* Implemented AI-based decision logic to dynamically adjust irrigation and nutrient schedules, reducing resource wastage.
- \* Built a web-based monitoring dashboard for remote visualization, control, and alerting of system parameters.
- \* Achieved 2530% reduction in water usage, 1520% increase in crop yield, and ~30% reduction in nutrient wastage compared to traditional systems.
- \* Designed custom system architecture and physical layout, ensuring scalability, clog-resistant delivery, and uniform distribution.
- \* Research paper published based on system design and implementation.

### AI-Driven Inventory, Costing & Demand Forecasting System

*MySQL (XAMPP), Python (Pandas, Statsmodels), Power BI, Excel, Jupyter Notebook*

- \* Designed and developed an end-to-end financial analytics solution to assess inventory health, product costing, and revenue trends for data-driven business decisions.
- \* Performed SQL-based analytical queries to identify reorder risks, analyze material cost contribution, and monitor month-over-month revenue performance.
- \* Implemented a time-series demand forecasting model in Python to predict future revenue and enable proactive inventory and cost planning.
- \* Built executive-level Power BI dashboards integrating SQL outputs and Python forecasts, visualizing inventory status, sales trends, demand projections, and cost-risk insights.
- \* Enabled strategic decision support by translating complex datasets into clear, actionable business metrics.

### **Quantum-Bio-Mycorrhizal Hydroponic Network (QBM-HydroNet)**

- \* Designed a novel substrate-based hydroponic grow-bag system integrating a managed mycorrhizal/microbial bio-network to enhance root health and nutrient cycling.
- \* Engineered a precision subsurface drip irrigation system delivering plasma-activated nutrient solutions for improved bioavailability and disease control.
- \* Developed an AI- and IoT-driven automation framework to monitor and dynamically regulate moisture, EC, pH, temperature, and lighting in real time.
- \* Implemented machine-learningbased adaptive control logic for irrigation scheduling, nutrient dosing, and LED photoperiod optimization.
- \* Filed a patent covering system architecture, bio-network integration, plasma-activated irrigation, and AI-based adaptive control, designed for scalable high-value crop cultivation.

### CERTIFICATIONS

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- Career Essentials in Data Analysis by Microsoft and LinkedIn - MICROSOFT AND LINKEDIN.
- Oracle Cloud Infrastructure 2025 Certified Generative AI Professional - ORACLE.
- Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate - ORACLE.
- Oracle Cloud Infrastructure 2025 Certified Data Science Professional - ORACLE.
- Develop, Customize, and Publish in Omniverse WithExtensions - NVIDIA.
- Set up an App Dev Environment in Google Cloud - GOOGLE CLOUD.
- Deploy Kubernetes Applications on Google Cloud - GOOGLE CLOUD.
- GenAI Powered Data Analytics Job Simulation - TATA Forage.
- Data Analytics Job Simulation - Deloitte Forage.

### HONORS & AWARDS

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- Research Paper Publication: Published peer-reviewed paper on HydroNexus at IEEE PUNECON 2025
- Patent Grant in Progress: Filed patent for Quantum-Bio-Mycorrhizal Hydroponic Network (QBM-HydroNet)
- Google Cloud Arcade Cohort 2 (Legend Tier - Highest Level)
- 2nd prize in Web Dashboard Designing in Intercollege Vintra event 2024
- Multiple 1st prize in Intercollege Vintra event 2025
- 1st prize in Intercollege ACM Event 2025
- Achieved 110+ skill badges on Google Cloud Skill Boost Platform