# **BALAGURU G**

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## **CAREER OBJECTIVE**

To secure a position in the field of Artificial Intelligence and Machine Learning where I can apply my knowledge of data science, algorithm development, and model training to solve real-world problems, while enhancing my skills through continuous learning and impactful projects.

#### **EDUCATION**

#### B. Tech Artificial Intelligence and Data Science

2022 - 2026

PSNA College of Engineering and Technology, Dindigul. CGPA: 7.91

HSC 2021 – 2022

Thaai Matric. Hr. Sec. School, Alanganallur. Percentage: 87.3%

SSLC 2019 – 2020

Thaai Matric Hr. Sec. School, Alanganallur. Percentage: 99%

# **SKILLS**

Programming Languages: Java, Python

Web Development: HTML, CSS, Javascript

Proficient in: Data Structures, AI, NLP

Database: SQL, MongoDB

Soft Skills: Good Communication, Problem Solving

Analytics: Numpy, Power BI, R

IDE: VS Code, PyCharm

#### **PROJECTS**

# **Vehicle Smoke Emission Detection:**

Developed an AIoT based system to detect excessive smoke emissions from vehicles in real-time, helping to monitor pollution and support environmental protection efforts.

# iTech Hackfest - Student Guidance App:

Designed a concept for an education guidance app providing course recommendations, study materials, and mentorship connections.

## EDII Hackathon - Movement of Humans in Smoke Detection:

Worked on AI-based human movement detection in smoke-filled environments for emergency response solutions.

# Theerkathon - AI-Powered Radiant Cooling System:

Developed an eco-friendly cooling system that efficiently circulates water through embedded building pipes. The solution significantly reduces energy consumption and promotes sustainable temperature regulation.

## **Fake News Detection Web Application:**

Built a web application to identify and flag potentially fake news articles based on keyword pattern matching and rule-based logic. Designed a clean user interface for user input and stored detection results in MongoDB for further analysis. Entire project was developed and deployed using VS Code.

#### **CONFERENCE PRESENTATION**

# Technical Paper Presentation at 15th International Conference on Science & Innovative Engineering – 2025 (26 & 27 April, 2025)

Title: AI-Powered Solar Radiant Cooling: Smart, Sustainable Climate Control with PEX Piping.

Conference: 15th International Conference on Science & Innovative Engineering 2025.

**Organized by:** Prince Dr. K. Vasudevan College of Engineering & Technology, Chennai, in association with Manipal University College, Malaysia.

**Description:** Presented a research paper on the development of an AI-powered, solar-enhanced radiant cooling system utilizing PEX piping and ACP insulation for sustainable climate control solutions.

# **CERTIFICATIONS**

# HTML Certification (Aug 5, 2024)

Learned the fundamentals of HTML and CSS, including creating web pages, using proper structure, and styling for a better user experience.

# Cloud Security Fundamentals - Palo Alto Networks Academy (Feb 6, 2025)

Gained foundational knowledge of cloud security principles, including threat identification, secure architecture, and risk management.

# Data Visualization with Power BI (Aug, 2024)

Learned the basics of **Power BI**, including data visualization, report creation, and building simple interactive dashboards.

# Google Generative AI Completion Badge (Nov 22, 2024)

Completed Basics of Generative AI by Google, gaining fundamental knowledge in AI concepts and applications.

# HackerRank - Problem Solving Certification (July, 2025)

Completed the HackerRank skill certification in problem solving (basic).

#### **ACHIEVEMENTS**

## Winner - Theerkathon 2024 (StartupTN- September 2024)

Developed an AI-powered radiant cooling system integrating solar energy and sustainable PEX-based water circulation. The solution was recognized for its innovative approach to eco-friendly, cost-effective indoor climate regulation—selected as the winning idea among top finalists for its potential real-world impact.

# CodeChef Problem Solver Bronze Badge (July 2025)

Solved 50+ coding problems on CodeChef and earned the Problem Solver Bronze Badge.

#### **INTERNSHIPS**

## TechOctanet Services Pvt Limited-Python Programming (Nov 1, 2024 - Dec 1, 2024)

Completed a 1 month Python Development Internship at TechOctanet Services Pvt Ltd, gaining hands-on experience in coding, debugging, and real-world applications.

## CodeAlpha- Data Science (Feb 2, 2025 - Feb 28, 2025)

Completed a Data Science Internship at Code Alpha, developing skills in data processing, visualization, and predictive analytics.

## Dot Com Infoway- Data Science (June 20, 2025 - July 18, 2025)

Working on data analysis and visualization using tools like Python, NumPy, Power BI, and assisting with SQL-based data handling for business insights.