#### **G. VIGNESHKUMAR**

### Fresh Graduate

134/127 Madasamy Kovil North Street, Rajapalayam – 626117,

Virudhunagar District, Tamil Nadu

### **PROFILE SUMMARY**

Recent B.Sc. Computer Science graduate with hands-on machine learning experience. Developed a health insurance cost prediction system achieving 81.3% accuracy using real-world data. Strong programming foundation in Python, C++, Java, and SQL with proven problem-solving abilities

#### **EDUCATION**

**Bachelor of Science in Computer Science** | 2022 - 2025

Arulmigu Kalasalingam College of Arts and Science, Krishnankoil | CGPA: 7.5/10

**Higher Secondary Certificate** | 2020 - 2022

SRB A.K.D. Dharmaraja Boys HSS, Rajapalayam | 78%

### **TECHNICAL SKILLS**

**Programming:** Python, Java, C++, C, PHP, SQL **Web Technologies:** HTML5, CSS, JavaScript

Databases: MySQL, Oracle

ML & Data Science: Scikit-learn, Pandas, NumPy, Linear Regression, Random Forest

Tools: Windows, Linux.

### **MAJOR PROJECT**

### **Medical Insurance Cost Prediction System**

**Tech Stack:** Python, Machine Learning | **Type:** Individual Academic Project

**Overview:** Developed ML system to predict health insurance costs addressing post-COVID healthcare cost estimation needs.

# **Key Achievements:**

- Implemented Multinomial Logistic Regression and Random Forest algorithms
- Processed 1,338 medical records from USA Medical Cost Dataset (Kaggle)
- Achieved **95% prediction accuracy** through systematic optimization
- Applied Linear Regression for cost-factor relationship analysis
- Used **70-30 train-test split** for model validation

### **Technical Work:**

- Feature engineering on Age, Gender, BMI, Smoking habits, Children count
- Statistical analysis of medical cost correlations with personal factors
- Comparative algorithm performance analysis
- Data preprocessing and visualization for model interpretability

**Impact:** Demonstrated practical healthcare cost estimation application relevant to current insurance market.

### **KEY COMPETENCIES**

- Problem-Solving: Delivered end-to-end ML project with measurable results
- Self-Learning: Mastered Python libraries and ML concepts independently
- Leadership: Organized departmental events (Fresher's Day, Association programs)
- **Teamwork:** Active participant in cultural events and group activities
- Communication: Fluent in English & Tamil, technical presentation experience

### **EXTRACURRICULAR ACTIVITIES**

- Event Management: Led departmental functions and college programs
- **Sports:** Cricket player with team collaboration skills
- **Cultural:** Active participant in college events and competitions
- Martial Arts: Silambam (Traditional Tamil martial art) practitioner

# **ADDITIONAL INFORMATION**

**Availability:** Immediate

Languages: English (Fluent), Tamil (Native) | DOB: December 8, 2004

## **DECLARATION**

I hereby declare that all information mentioned above is true and accurate to the best of my knowledge.

Place: Rajapalayam

[G. Vigneshkumar]