

# Vivek Kamble

## Senior Software Engineer

☎ +91 8108300271 ✉ kamblevivek766@gmail.com in www.linkedin.com/in/VivekKambleAI 📍 Mumbai, IN

### SUMMARY

3+ years experienced enterprising software engineering professional with hands-on experience in designing, implementing, installing software solutions and developing high-quality software designs & architecture. Adept at brainstorming & creating various tools and applications by producing efficient code, conducting systems analysis to improve operations, and automating tasks through appropriate tools & scripting. Proficient in interacting with the clients to successfully execute multiple projects within the stipulated time .

### SKILLS SUMMARY

- **Languages:** C#, Python, C++, WPF, SQL
- **Tools :** OpenCV, EmguCV, ML.net, Tensorflow, NumPy, SciPy, Pandas, pytorch, matplotlib, Scikit-Learn, git
- **Technical Skills :** Deep learning, Machine learning, Computer vision, Image processing, Object Detection, Speech Processing, Optical Character Recognition (OCR), tesseract, Socket Programming, Predictive & Statistical Modelling, OOP, Data structure, Algorithms
- **Key Skills:** Software Development, Project Delivery, Process Improvement, Team Coordination & Leadership

### EDUCATION

#### Certification in PG Diploma AI and ML course

Feb '20 - Mar '21

#### IIIT Bangalore

Bengaluru, IN

- **Course modules:**

- Programming in Python | Python for Data Science | Data Analysis Using SQL
- Exploratory Data Analysis | Inferential Statistics | Hypothesis Testing
- Linear Regression | Logistic Regression | Naïve Bayes
- Advanced Regression | SVM | Tree Models | Boosting | Clustering | PCA
- NLP : Lexical Processing | Syntactic Processing | Semantic Processing
- Neural Networks | CNN | RNN
- Classical Reinforcement Learning | Deep Reinforcement Learning

#### M. Sc. in Electronic Science

Jun '16 - May '18

#### Department of Electronic Science, Savitribai Phule Pune University

Pune, IN

- CGPA - 7.20

### EXPERIENCE

#### Senior Software Engineer

Aug '18 - Present

#### TEJ Control Systems Pvt. Ltd.

Mumbai, IN

1. **Design and Implementation of end- to-end system with Machine Learning and Computer vision** solution to solve problem in manufacturing process at healthcare, tools development, Oil & Gas and Textile Industries.
2. Fully tested and on-boarded the system into production and monitored its impact on business side.
3. **Created various Image processing toolbox and computer vision toolbox blocks .**
4. Created various projects for data logging from various devices using socket programming and analyzed the data using machine learning technique and data visualization techniques .
5. Development of thermal Images in food and pharmaceutical industries for detection of faulty packaging seal and in steel plant for Automation of Coal Quenching.
6. Created software to meet the 21CFR compliance.
7. Hands on Experience with **Optical Character Recognition using Tesseract**
8. **Report Generation and creating various templates in PDF and Excel format**
9. Integrated with various IP camera SDK (FLIR, Hikvision, Dalsa, Basler) .
10. **Develop a application for Robotic pick and place using object detection**

11. Applied various machine learning techniques to build dynamic and maximize profits in beverages industry by tracking and tracing recycle sample .

### Key Achievements

- Curtailed the head counts required for the operations which increased revenue for manufacturing domain.
- Successfully achieved a **30% loss reduction** of monthly revenue of beverages manufacture by implementing loss minimization techniques

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## PROJECTS

- **Speech Processing and gender detection**
  - Acquire data, Signal Processing , Extraction method for human factor cepstral coefficient (MFCC), vector quantization ,KNN
  - Key Achievement: Created a model with 89 % accuracy
- **Sealing Application using Thermal Images**
  - It is very hard to detect the sealed package once closed. The thermal camera is used to get the thermal distribution pattern of sealing. Used Object Detection and Classification methods to extract the features and detect the defective sealing.
  - Key Achievement: Created a model with an **AUC score of 0.85**
- **Used Car price detection**
  - Designed various machine learning model using **Random Forest , Linear Regression, Ridge Regression, Lasso, KNN, XG Boost** to predict the price of the used car and comparison of model performance

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## CERTIFICATIONS

- IIIT AI and ML

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## HONORS and AWARDS

- Appreciation certificate for Implementation and deployment of coal quenching automation software in steel plant.
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