[redacted]

Education

SRM Institute of Technology [redacted], [redacted]
Bachelor of Technology in CSE (Data [redacted]), Current CGPA: 9.50 [redacted] – *Present*

[redacted] [redacted], [redacted]
Class 12th, Percentage: 92.8 [redacted]

[redacted] ([redacted]) [redacted], [redacted]
Class 10th, Percentage: 92.8 [redacted]

Experience

Data Analyst Intern
Zidio Development *Remote*

- Engineered a segmentation model using deep learning techniques to categorize large datasets, yielding actionable business insights.
- Employed convolutional neural networks (CNNs) and advanced algorithms, enhancing segmentation model accuracy by over 35%.
- Applied data augmentation strategies to bolster model robustness across diverse datasets.
- Collaborated with cross-functional teams to successfully deploy the segmentation model in production environments.

Research Intern
[redacted], [redacted] *Remote*

- Collaborating with Prof. [redacted] to develop a real-time illegal trash dumping detection system.
- Utilizing OpenPose for pose estimation in C++ to identify illegal trash dumping activities with high precision.
- Designed and deployed a multi-class classification model to differentiate between various types of dumping actions, achieving a detection accuracy improvement of over 40%.
- Incorporated real-time video processing pipelines, reducing detection latency by 20% for immediate response systems.
- Leveraged neural networks, combined with object detection and motion tracking, to enhance the detection framework's accuracy and efficiency.

Mobile App Developer
SRM Hospitals *SRM Hospital* [redacted]

- Developed a mobile application aimed at enhancing patient-hospital communication, particularly for pregnant women, by providing direct access to healthcare services and support.
- Integrated real-time features such as appointment scheduling, medication reminders, and emergency contact options, resulting in a 35% reduction in missed appointments and better patient adherence.
- Utilized Flutter for cross-platform app development and Firebase for secure backend data management, achieving a 90% app uptime and ensuring data synchronization.
- Collaborated with healthcare providers to optimize user experience, leading to a 50% increase in user engagement and a reported 75% improvement in communication satisfaction from users.

Projects

Accident Detection Using Machine Learning and CNN Python, VGG19, InceptionV3

- Published a paper on an accident detection framework using machine learning and convolutional neural networks (CNN) for real-time video analysis.
- {Utilized a large dataset to train the model, achieving high accuracy in identifying potential accident scenarios in real-time.
- Combined object detection and motion tracking techniques to accurately detect accident events in various environments. .
- Optimized the model to function effectively within limited processing constraints, enhancing real-time applicability.

ChromaGenius: Deep Learning Image Colorization Python, GANs

- Trained a deep learning model for image colorization using Generative Adversarial Networks (GANs).
- Executed adversarial training, enabling the generator to produce realistic colorizations of grayscale images.
- Achieved high-quality results by refining the model through iterative training, enhancing performance by 20%.
- Reduced training time by 25% through model optimization techniques.

Document AI: PDF Data Extraction [redacted] v3

- Developed a PDF data extraction system using [redacted] v3 for accurate, structured data extraction from unstructured documents.
- Automated workflows, achieving a 40% increase in processing efficiency and reducing manual effort.
- Advanced to the finals in a competitive showcase, highlighting the project's innovative impact and practical relevance.
- Optimized processing speed by implementing the Retrieval-Augmented Generation (RAG) technique, improving document parsing time by 20%.

AI-Powered [redacted] Market Prediction System Python, [redacted], [redacted]

- Designed a deep learning-based stock market prediction system using [redacted] models to analyze historical stock prices and forecast trends.
- Enhanced model accuracy by integrating technical indicators like RSI and MACD as additional features.
- Implemented a pipeline for data preprocessing, feature engineering, and model evaluation, achieving a prediction accuracy improvement of 30%.
- Reduced prediction latency by 20% through optimization of model architecture and hyperparameter tuning.

Peer-to-Peer [redacted] Database, Python, Blockchain

- Constructed a decentralized platform for peer-to-peer energy trading using blockchain technology, reducing transaction costs by 30%.
- Designed a secure transaction system facilitating energy exchange between producers and consumers, improving trading efficiency by 25%.
- Developed smart contracts to automate trading processes, increasing transparency by 40% and reducing manual intervention.
- Integrated real-time analytics tools, optimizing energy usage patterns and enabling users to reduce energy costs by up to 15%.

Certifications

Google AI ML AICTE Virtual Internship	View Credential
NPTEL Python for Data Science (Top 2%)	View Credential
NPTEL Programming in Java	View Credential
Altair Data Science Virtual Internship (AICTE)	View Credential
Meta Hacker's Cup	View Credential
Intel Unnati Lab	View Credential
AWS Skill Builder Machine Learning	View Credential
Research Paper on Accident Detection	

Technical Skills

Languages: Java, Python, C/C++, SQL,[redacted],Flutter, JavaScript
Frameworks: React, [redacted], [redacted], [redacted],Angular.js
Developer Tools: Git, [redacted], Firebase, Google Cloud Platform, VS Code, Google Colab, Android Studio
Libraries: Pandas, NumPy, Matplotlib, OpenCV, Scikit-learn, [redacted], Keras, PyTorch, SciPy, [redacted], Plotly
Competitive Skills: LeetCode (1568),Competitive Programming (Codeforces 1300)

[redacted]

Mobile No.: [redacted]
Email-id: [redacted]
LinkedIn: www.linkedin.com/in/abhinav-prajapati-0b7711254
GitHub: https://github.com/[redacted]-Prajapati

PROFESSIONAL SUMMARY

I am a skilled Full Stack Web Developer and Embedded Programmer with expertise in web and IoT projects. Experienced in building sy [redacted] from scratch, I specialize in front-end development (React, React Native), back-end frameworks (FastAPI, [redacted]), and embedded programming (Arduino, ESP32). Notable achievements include top rankings in the [redacted] ckathon in Singapore, showcasing my problem-solving and technical leadership. Pro❖fcient in [redacted], [redacted], PostgreSQL, and AWS, I am dedicated to creating practical, impactful solutions.

CORE COMPETENCIES / SKILLS

- **Front-End Development:** React, React Native, Tailwind CSS
- **Back-End Development:** [redacted], [redacted]
- **Database Management:** PostgreSQL
- **Embedded Systems:** C/C++ for Arduino, ESP32
- **Tools and Platforms:** Docker, [redacted], [redacted] (EC2, S3)
- **Additional Skills:** Problem-solving, Team Leadership

ACHIEVEMENTS

- 1st Position – [redacted] Hackathon, [redacted]
- 1st Runner Up (2nd Position) – [redacted], [redacted]
- 2nd, 4th, and 5th Positions – [redacted], [redacted]
- All [redacted] Rank 11 – DD [redacted] 2023
- 2nd Runner Up – [redacted] Hackathon, [redacted], [redacted]

EXPERIENCE

- Embedded Programmer (Robotics), [redacted], [redacted], [redacted] [redacted] - Led the design and development of robotic projects using Raspberry Pi and Arduino Uno for DD [redacted]. Collaborated with a multidisciplinary team to prototype and test robotic solutions. - Implemented drive systems and control algorithms, integrating mechanical components to enhance robot functionality.

PROJECTS

- HYDRATEME – Smart Hydration Solution (Current Project) Combines IoT sensors and a mobile app to track and personalize water intake based on health data, activity, and weather conditions. **Technologies Used:** React Native, [redacted], PostgreSQL, ESP32
- Home Automation System Built a home automation system using Home Assistant and ESP32 modules for remote control of lights, appliances, and door locks with RFID tags. **Technologies Used:** Home Assistant, ESP32, RFID sensors

LEADERSHIP VOLUNTEER EXPERIENCE

- Technical Team Leader Experienced in task delegation and team coordination, ensuring effective collaboration in technical projects. Led multidisciplinary teams from ideation to testing phases.

[redacted]

[redacted]

EDUCATION

[redacted]

Bachelor [redacted] (B. Tech.) Chennai, [redacted]

Current CGPA (9.65) [redacted] *– Current*

[redacted] **(U[redacted])** [redacted]

12th Percentage:79% *April.2020-*[redacted]

S.T[redacted]'s [redacted] (C.B.S.E)

10th Percentage: 85% [redacted]

Projects

[redacted] -Present

FinTaxPro: Tax [redacted] System
Developed a robu ment System to automate tax filing for individuals and businesses. Integrated data collection, intelligent tax calculations, and compliance monitoring. Ensured da ty using AES encryption and provided customizable reporting. Utilized HTML/CSS , Javascript, [redacted], MongoDB for a scalable and secure solution.

ColorCraft: AI-Driven Image Colorization
Developed and trained an AI model for image colorization using a Generative Adversarial Network (GAN). The model features a generator that colorizes grayscale images and a discriminator that distinguishes between generated and real color images. Through adversarial training, the system produces vibrant and realistic colorizations, achieving high-quality results.

WeatherWise: Real-Time Weather API Integration
Integrated a real-time weather API into a website to provide users with accurate and up-to-date weather information. Implemented features such as location-based weather updates, forecasts, and weather alerts. Ensured a responsive and user-friendly interface for seamless access to weather data.

[redacted]: **Efficient Order Serving Application**
Designed and developed a streamlined order serving application utilizing the First-Come-First-Serve (FCFS) algorithm. The application e ciently manages and processes customer orders in the order they are received, optimizing the order fulfillment process for enhanced customer satisfaction and operational e ciency.

Certifications

Certification in DBMS by Scalar

AWS Skill builder machine learning

NPTEL Data analysis of algorithm

NPTEL Programming in Java

[redacted] **AI/ML Virtual Internship**

Technical Skills

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, [redacted]
Frameworks: [redacted], [redacted], [redacted], [redacted]
Developer Tools: [redacted], [redacted], [redacted] Platform, [redacted], Visual Studio, [redacted]
Libraries: pandas, NumPy, Matplotlib, [redacted].