Pragadeeswaran **K** | AI/ML Engineer & Research-oriented Developer

Tiruvannamalai, Tamil Nadu, India

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Professional Summary

B.Tech AI student (CGPA 9.31/10) with hands-on computer vision, RL, and accelerated ML experience. Ship reproducible research, mentor peers, and deliver end-to-end AI products across TensorFlow, PyTorch, RAPIDS, and modern web stacks.

Research Interests

Computer Vision; Deep Learning; RL; Efficient ML Systems; Applied Statistics; NLP; Generative Models

Technical Skills

Languages: Python, TypeScript, JavaScript, SQL, Java, Dart, HTML5/CSS3

AI/ML: TensorFlow, PyTorch, Keras, Scikit-learn, RAPIDS cuDF/cuML, OpenCV, Hugging Face, NLTK

Data: Pandas, NumPy, Matplotlib, Seaborn, SPSS, Statistical Analysis, Hypothesis Testing

Web Dev: React, Next.js 14, Tailwind CSS, REST APIs, Flask, Node.js

Cloud/DevOps: AWS, Oracle Cloud, Vercel, Git/GitHub, CI/CD, Serverless

Tools: Streamlit, Jupyter, VS Code, Docker, Beautiful Soup, PyTesseract, Pygame

Education

SRM Institute of Science and Technology   **Chennai**
B.Tech in Artificial Intelligence, CGPA 9.31/10 | Expected May 2026   *2022 – Present*
Key coursework: ML, DL, CV, RL, Data Structures, DBMS, Computer Architecture, Probability, Linear Algebra, Operating Systems, Cloud Foundations, Data Engineering

Jeeva Velu International School   **Tiruvannamalai**
Higher Secondary Education, Score: 81.8%   *2020 – 2022*
Computer Science stream

Sri Siksha Kendra International School   **Tiruvannamalai**
Secondary Education, Score: 83.4%   *2018 – 2020*

Professional Experience & Internships

Linucare / Protechme   **Denmark (Remote)**
                          May 2025 – Present

Embedded firmware for low-power connected devices
○ Build ESP32 modules covering device comms, peripherals, and OTA readiness.
○ Reduce power budgets via smarter task scheduling, deep sleep tuning, and hardware profiling.
○ Improve acquisition/data paths and document core architecture decisions.

SRMIST   **Chennai**
AI/ML Student Researcher, Self-Directed Study   *Jun 2023 – Present*
○ Run reproducible ML experiments with ablations and literature-grounded baselines.
○ Apply statistical analysis (hypothesis tests, regression, correlation) for health datasets in Python/SPSS.
○ Present outcomes in forums and mentor peers on ML fundamentals and tooling.

Independent   **Remote**
Technical Projects & Open Source   *Jan 2024 – Present*
○ Built Acadion Mobile (React Native) with offline-first sync, secure storage, and accessibility.
○ Shipped personal portfolio on Next.js 14 + Tailwind with Core Web Vitals optimisations.
○ Contributed features/docs to Seat Finder and Raspberry Pi Security Camera OSS projects.

Virtual Internships & Programs

○ AICTE Eduskills: AWS AI/ML + Data Engineering

○ Google Android Developer: Material Design + architecture components

○ ALTAIR Data Science Master: analytics, viz, statistical modeling

Selected Projects

Python, RAPIDS
GPU-Accelerated Fake News Detection
○ Built GPU text-classification pipeline benchmarking RAPIDS vs. ensemble baselines with runtime/accuracy trade-offs.

PyTorch, Pygame
Autonomous Driving Simulation (Deep Q-Learning)
○ Implemented DQN with replay buffers + target nets; visualised exploration schedules and reward shaping.

SPSS, Python
Diabetes Health Indicators Analysis
○ Ran chi-square, correlation, and regression studies; published reproducible notebooks + SPSS outputs.

TypeScript, React Native
Acadion Mobile
○ Built privacy-first companion app with offline state, secure storage, and performance-tested builds.

NLP, OCR, Flask
EduSmartBot
○ Combined scraping, OCR, and NLP to turn PDFs into Q&A content with a Flask interface.

LSTM, RNN, HMM
Stock Price Prediction Ensemble
○ Benchmarked sequence models with unified feature pipeline and interactive diagnostics.

Certifications

Oracle Cloud Infrastructure 2024 Generative AI Professional; Oracle Cloud Computing Foundations

AWS Academy Machine Learning Foundations; AWS Data Engineering; AWS Cloud Foundations

NPTEL Programming in Java, Database Management Systems, Computer Architecture

Hackathon Participant – CINTEL Digithon, Hackstreet 3.0, Webathon 2.0

Honours & Activities

Top-decile CGPA (9.31/10) in B.Tech AI cohort; active hackathon contributor delivering AI/ML prototypes.

Peer mentor for Python, ML, and full-stack; community contributor to AICTE Eduskills, Google Android Developer, ALTAIR Data Science.

Additional Information

Soft Skills: Problem Solving; Critical Thinking; Collaboration; Adaptability; Communication; Project Management; Time Management

Tools: Git/GitHub, Jupyter, VS Code, PyCharm, Postman, Docker, npm/pip, SPSS, Pygame

Cloud: AWS (SageMaker, Lambda, S3), Oracle Cloud, Vercel, CI/CD pipelines

Specialized: RAPIDS GPU acceleration, Deep Q-Learning, Statistical Analysis, Time-Series Forecasting, IoT Systems (Raspberry Pi)

Languages: English (Professional), Tamil (Native)