ICT ACADEMY OF KERALA

ICTAK SOLUTIONS INTERNSHIP

Information and Communication Technology Academy of Kerala (ICTAK) is a social enterprise created by the Government of Kerala with the support of the Government of India and leading IT companies such as TCS, Sowparnika Education Infrastructure, IBS, UST, and QuEST. Formed in 2014 under a Public-Private Partnership model, the organization's primary objective is to equip the youth of Kerala with essential ICT skills, consequently enhancing their prospects for employment within the industry. As the leading provider of a skilled workforce in the industry, ICTAK has an impressive track record, having trained over 100,000 students and facilitating more than 14,000 successful placements since its establishment.

A **GOVT. OF INDIA** SUPPORTED, **GOVT. OF KERALA** PARTNERED SOCIAL ENTERPRISE.

About ICTAK Solutions Internship

At ICT Academy of Kerala, we are committed to fostering the next generation of talent and providing young professionals with the opportunity to kick-start their careers. Our Internship Program is designed to offer a comprehensive and immersive learning experience for the interns. During your internship, you will have the opportunity to gain hands-on experience in your chosen field, and contribute to meaningful projects. Our goal is to provide you with a supportive environment where you can develop your skills, expand your knowledge, and build a foundation for your future career.

We encourage you to embrace this opportunity with an open mind and a willingness to learn. Be curious, ask questions, and don't hesitate to seek guidance from your mentors and colleagues. Your ideas and perspectives are valuable, and we look forward to seeing your unique contributions.

Your journey with us starts here, and we look forward to helping you grow, learn, and achieve your career goals. We believe in your potential and are excited to see all that you will achieve during your internship.

Internship Roadmap

Day 1-2: Project Kickoff and Understanding

- Tasks:
    - Meet with your team to discuss project goals and requirements.
    - Understand the problem domain and define the scope of the project.
    - Identify key stakeholders and their expectations.

Day 3-4: Dataset Identification and Acquisition

- Tasks:
    - Identify potential datasets relevant to the project.
    - Assess the quality and suitability of the identified datasets.
    - Acquire and preprocess the selected dataset.

Day 5-6: Exploratory Data Analysis (EDA)

- Tasks:
    - Perform exploratory data analysis on the dataset.
    - Visualize key statistics and patterns in the data.

- Identify potential challenges or anomalies in the dataset.

Day 7-8: Data Preprocessing and Feature Engineering

- Tasks:
  - Clean and preprocess the dataset.
  - Handle missing values, outliers, and any data quality issues.
  - Perform feature engineering to create relevant features.

Day 9-10: Model Selection and Training

- Tasks:
  - Select a suitable machine learning model for the problem.
  - Split the dataset into training and validation sets.
  - Train the selected model on the training data.

Day 11-12: Model Evaluation and Fine-tuning

- Tasks:
  - Evaluate the model's performance on the validation set.
  - Fine-tune hyperparameters to improve model performance.
  - Consider different evaluation metrics based on the project goals.

Day 13-14: Model Interpretability and Documentation

- Tasks:
  - Interpret and document the model's predictions.
  - Create documentation for the model, including key decisions made.
  - Prepare for the model deployment phase.

Day 15-16: Front-end Development

- Tasks:
  - Define the user interface (UI) requirements for the project.
  - Begin developing the front-end components of the application.
  - Integrate the data visualization components with the UI.

Day 17-18: Integration and Testing

- Tasks:
    - Integrate the trained model with the front-end application.
    - Address any issues or bugs identified during testing.

Day 19: Deployment

- Tasks:
    - Deploy the complete system, including both the model and front-end.
    - Monitor the deployment for any issues and ensure stability.

Day 20: Project Presentation

- Tasks:
    - Conduct final testing to validate the deployed system.
    - Prepare and present a final report on the project.

Self-learning Content for Weekends
Week 1 : Review EDA techniques and explore advanced visualization tools.
Week 2 : Learn about advanced model selection strategies.
Week 3 : Explore front-end development frameworks.
Week 4 : Deepen understanding of model interpretability techniques.

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