Log File Analyzer

Additive Manufacturing
Supervisor: **Mr. Lionel ARNAUD**

About Me

Université de Technologie Tarbes Occitanie Pyrénées

Zain Ramzan
March 25, 2000
Pakistan 🇵🇰

Objective

To contribute to a dynamic team where I can apply and enhance my skills in machine learning, deep learning, and computer vision, driving innovative solutions in technology and industry.

Outreach and Services

- **Moderator & Trainer (2023-Current)**
iCodeGuru
- **Web Developer (2021-22)**
AWS Community, Lahore Pakistan
- **Graphic Designer Head (2019-2022)**
Positive Pakistan Foundation, MUST Chapter

EDUCATION

- **M2 Industry 4.0 (2024-25)**
University Of Technology Tarbes Occitanie Pyrenees (UTTOP), Tarbes
- **B.sc in Electrical Engineering (2018-22)**
Mirpur University of Science and Technology (MUST), Mirpur Pakistan

Scientific SKILLS

- Machine learning & Deep learning
- Computer Vision
- Research & Problem-Solving
- Data Analysis & Visualization
- Business Intelligence
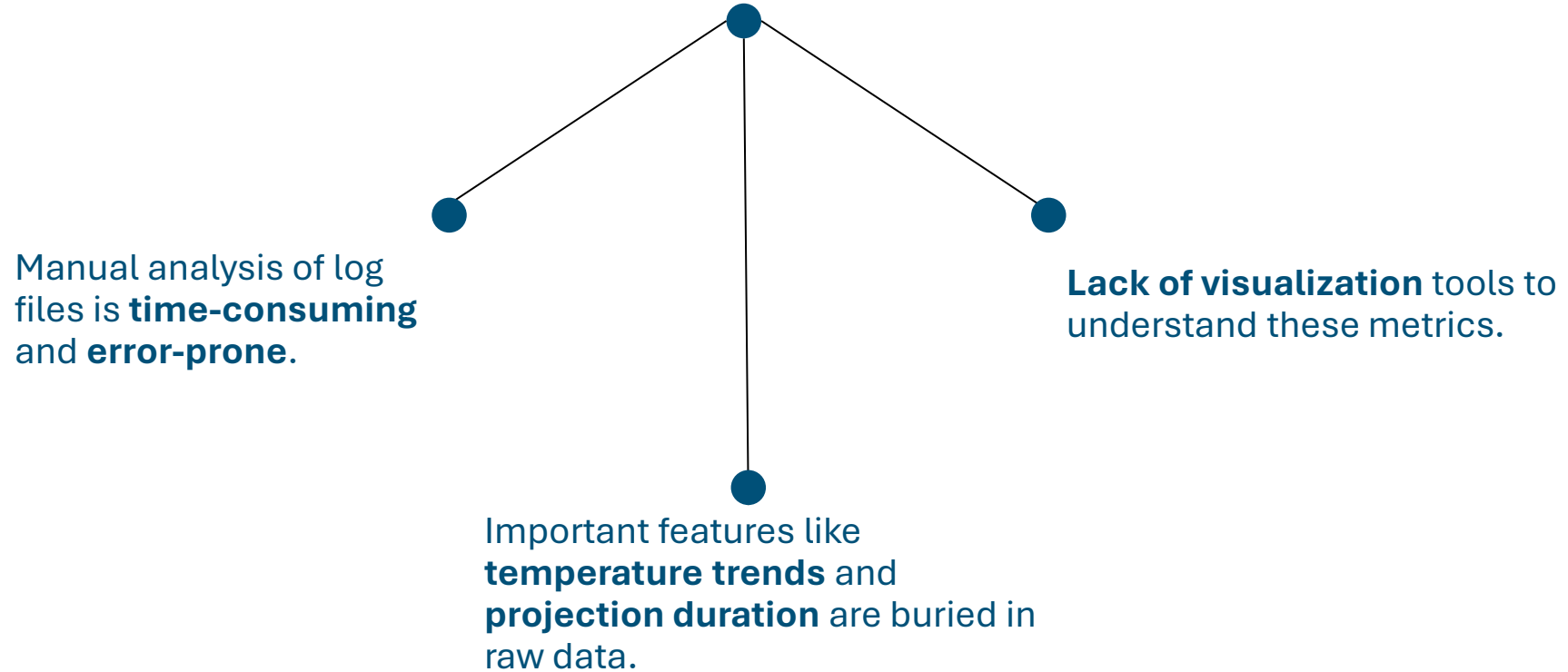- Programming and Development

HOBBIES

- Travelling
- Cooking
- Football
- Article Writing on LinkedIn
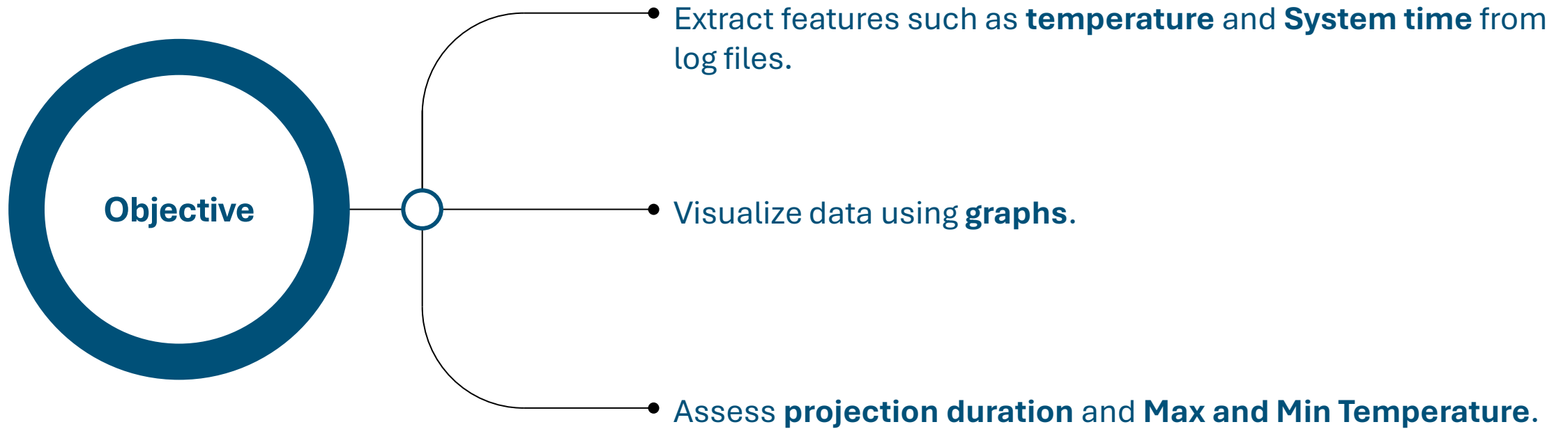- Scientific illustration designing

CONTACT INFO

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Problem Statement

Manual analysis of log files is **time-consuming** and **error-prone**.

Lack of visualization tools to understand these metrics.

Important features like **temperature trends** and **projection duration** are buried in raw data.

Objective

- Extract features such as **temperature** and **System time** from log files.

- Visualize data using **graphs**.

- Assess **projection duration** and **Max and Min Temperature**.

Methodology

- Organize the log file
- Extract required columns e.g System Time, plcToPc-elevatorTemp etc.

Log File Structure

- Unix System time to correct format
- Fill Null values, extract Min/Max Temp from plcToPc-elevatorTemp
- Using pandas, datetime library

Feature Extraction

- Display important features which are extracted such as Projection duration, start time, end time etc.

Features Display

Application Development

- Develop on tkinter GUI
- Available to everyone as an application
- Data is stored in sqlite3 Database

Key Features

Global Temperature
1
Global Max & Min Temperature of all the uploaded log file.

Log File Temperature
2
Max & Min Temperature of single log file.

Projection Duration
3
Total Production time in correct format i.e 10hr 02min 27sec

Start & End Time
4
Start & End time of the projection i.e January 13, 2025
10hr 02min 27sec

Graph
5
Temperature changes with respect to time during the projection.

Impact and Future Work

Impact

- Improved efficiency in **analyzing** projection logs.
- Enhanced understanding of projection machine **performance**.

Future Work

- Add **predictive** analytics.
- Integrate IoT for **real-time monitoring**.

Do you want to see the DEMO of Log file Analyzer Application?

Ok, Let me show you...

Thank you for listening!

Q&A

Do you've any questions? We're happy to answer.