EE P 596 - TinyML - Project Report Rubric

Total Points: 100
Spring Quarter, 2024
Department of Electrical and Computer Engineering
University of Washington, Seattle, WA 98195

Due: 11:59 pm (PST) on June 7 (Friday), 2024 via Canvas

Note:

- Name of your submission should follow the following format:
  " *#_$_EEP596_ProjectReport.pdf*" where "#" and "$" should be replaced with your first name and last name, respectively.
- One submission per team is sufficient
- **A maximum of 15 pages is allowed, including the title page and references.**

1. Title Page [5 points]

- Project Title
- Names of the Team Members

2. Contribution [5 points]

Team Member Contributions: Briefly explain the contribution of each team member using two to three sentences.

3. Introduction/Background [5 points]

- **Context and Significance:** Briefly describe the context and significance of the project.
- **Goals and Objectives:** Clearly state the project's goals and what you aim to achieve.

4. Methodology [25 points]

- **Data Description:** Describe the data used, including sources, preprocessing steps, and any data augmentation techniques.
- **Model Selection:** Explain the choice of model(s) and model compression technique(s), and why they were chosen.
- **Implementation Details:** Discuss the implementation details, including the hardware and software used. Mention specific libraries, frameworks, and tools.

5. System Design [20 points]

- **Workflow Explanation:** Explain the workflow of the system from data input to output using block diagrams.
- **Hardware Deployment:** Briefly describe how TinyML models are deployed on hardware (e.g., Arduino Nano BLE).

6. Results [25 points]

- **Performance Metrics:** Present the performance metrics of your model(s) before and after compression (e.g., accuracy, precision, recall, F1-score).
- **Visualization:** Include relevant charts, graphs, and tables to illustrate the results.
- **Results Analysis:** Analyze the results, highlighting key findings and insights.

7. Challenges and Solutions [5 points]

- **Challenges:** Discuss any challenges or issues encountered during the project.
- **Solutions:** Explain how you addressed these challenges.

8. Extensions and Future Work [5 points]

- **Potential Improvements:** Suggest potential improvements or extensions to the project.
- **Future Work:** Outline possible future work that can build on your project.

9. References [5 points]

Citations: List all the sources cited in your report using a consistent citation style.