To create an assurance case for the interpretability of the DeepMind machine learning-enabled system, I will use the Goal Structuring Notation (GSN) in a simplified text-based tree format. This assurance case will assume that "interpretability" means the ability for users to understand how outputs are derived by the model. This structure will include Goals (G), Strategies (S), Assumptions (A), Justifications (J), and Evidence (E).

\*\*Assurance Case for the Interpretability of DeepMind Machine Learning Enabled System\*\*

- \*\*G1: Ensure that the DeepMind ML system's decisions are interpretable\*\*

- \*\*S1: Define interpretability in the context of the ML system\*\*

- \*\*G1.1: Establish clear definitions and criteria for interpretability\*\*

- \*\*E1.1: Literature review on ML interpretability standards and metrics\*\*

- \*\*J1.1: Adoption of widely accepted interpretability criteria relevant to DeepMind’s application areas\*\*

- \*\*A1: Interpretability criteria are applicable across diverse DeepMind applications\*\*

- \*\*S2: Implement interpretability methods in the ML system\*\*

- \*\*G2.1: Integrate feature importance measures in the ML models\*\*

- \*\*E2.1: Documentation of feature importance technique implementation\*\*

- \*\*E2.2: Case studies demonstrating the use of feature importance in model decisions\*\*

- \*\*G2.2: Use model-agnostic methods to enable understanding across different ML models\*\*

- \*\*E2.3: Integration and usage logs of LIME or SHAP for model explanations\*\*

- \*\*G2.3: Provide user-accessible explanation interfaces\*\*

- \*\*E2.4: User manuals and training materials on how to interpret model outcomes\*\*

- \*\*J2.1: Usability testing reports showing effectiveness of explanation interfaces\*\*

- \*\*S3: Validate the effectiveness of interpretability approaches\*\*

- \*\*G3.1: Assess user understanding through feedback and targeted evaluations\*\*

- \*\*E3.1: Survey results before and after using the explanation features\*\*

- \*\*J3.1: External expert validation of interpretability assessments\*\*

- \*\*G3.2: Continuously monitor and improve interpretability features based on user feedback\*\*

- \*\*E3.2: Logs and reports from the system’s continuous improvement framework\*\*

- \*\*A2: Users have the basic technical knowledge necessary to understand explanations\*\*

- \*\*A3: Interpretability does not compromise the system's performance or confidentiality\*\*

This assurance case structure provides a high-level overview, assuming specifics of DeepMind’s architectural and application contexts. Depending on the complexity and requirements of the actual system, each component could be further detailed and supported by additional evidence and sub-goals.