Danqi Chen

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About me:
Focused and quick-learning Software Engineer (Full Stack Developer) with extensive experience in all phases of the Software Development Life Cycle (SDLC). Adept at Requirement Analysis, Design, Implementation, and Maintenance. Practiced in Scrum and Agile methodologies.

Technologies:
Golang, Java, JavaScript, Cassandra, Angular, Node.js, React, Python, C++, MySQL, Git, Chrome Developer Tools.

Project:

Deep Learning vs. Machine Learning Comparison Project
This project compares deep learning and machine learning using two real examples: Lifeifei's CNN-based image recognition system and a housing price prediction model. The image recognition system uses deep learning to analyze pictures and classify them accurately. The housing price model uses machine learning to predict home values based on factors like location and size. A challenge in this project was making sure both models were tested fairly, even though they used different types of data. To solve this, we used clear performance tests and looked at how each model made decisions. This project helps show when deep learning is needed and when regular machine learning is a better choice, based on the problem, data, and computing power available.

Reflection:

Customization for the Audience:

This artifact was tailored for both technical and non-technical audiences by providing clear explanations of complex AI concepts. For technical readers, detailed model performance comparisons and data preprocessing techniques were included. For non-technical stakeholders, visualizations and simplified explanations were used to highlight key differences and practical applications.

Lessons Learned:

During the project, I gained a deeper understanding of how different AI models handle data. I learned that deep learning excels with large-scale image datasets but requires more computational power, whereas traditional machine learning is efficient for structured numerical data.

Feedback and Revisions:

Feedback from peers suggested improving clarity in the explanation of model decision processes. To address this, additional charts were added to illustrate model outputs and performance metrics. Also, I refined the discussion on bias in model training after receiving feedback about the importance of dataset quality.

Growth and Future Applications:

This project enhanced my ability to critically evaluate AI models based on problem constraints. Moving forward, I plan to explore hybrid approaches that integrate both deep learning and traditional machine learning for optimal performance in real-world applications.