PREFACE

In today's dynamic and fiercely competitive business environment, effective marketing and advertising strategies are paramount for businesses to survive and thrive. Traditional marketing methods, such as 'Paper & Wire' physical address front yard signs, have become increasingly inefficient and ineffective in reaching target audiences and measuring advertising performance. This necessitates the development of innovative solutions that leverage cutting-edge technology to address these limitations. YardSignPro emerges as a groundbreaking solution poised to revolutionize the way businesses advertise their services. This next-generation 'Geo-AI' out-of-home (OOH) marketing and advertising web app replaces traditional yard signs with geospatial interactive digital 'Smart' yard signs. These digital signs are strategically placed on a Geographic Information System (GIS) base map, providing businesses with a powerful tool to enhance their marketing efforts.

The study focuses on the development and evaluation of YardSignPro, highlighting its potential to transform the home service industry. By leveraging real-time data and advanced geospatial technology, YardSignPro enables businesses to target their advertising efforts more effectively and measure their impact in real time. This approach aligns with the growing trend of Online-to-Offline (O2O) commerce service models, which aim to provide a seamless and integrated customer journey.

This thesis is of paramount importance for several reasons. It addresses the critical need for more efficient and effective advertising solutions within the home service industry. It leverages cutting-edge technology to provide businesses with actionable insights and real-time analytics, enabling them to optimize their advertising strategies and maximize their return on investment. Ultimately, YardSignPro has the potential to revolutionize how home service providers, contractors, and consultants approach marketing and advertising, paving the way for a more streamlined and practical approach to reaching customers. The following chapters provide a detailed exploration of YardSignPro's development process, from requirement analysis and system design to implementation and field testing. Through this comprehensive study, we aim to demonstrate the significant impact that geospatial technology can have on improving advertising effectiveness and driving business success in the home service industry.

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