**Statement of Purpose**

In autumn 1995, I started my academic path at Georgia Tech, choosing Information Design and Technology, inspired by the university's distinguished reputation. This choice set me on a path toward software companies. Over the years, I've grown from a junior engineer to a consultant, architect, and finally, a business manager in the security field. My passion for learning has now drawn me back to Georgia Tech, with a new focus on data analytics. I'm determined to transition into a role as a data analytics engineer in product engineering and eventually specialize as a security researcher, utilizing data analysis to enhance software security. My objective is to build a robust foundation in the theoretical, technical, and practical aspects of data analysis from Georgia Tech to support this transition.

My exploration of data analytics began at Microsoft Services in the Security Strategy & Solutions team, where we aimed to integrate machine learning with security solutions. As a Solution Manager, collaborating with data scientists, we tackled business challenges by selecting appropriate datasets, applying advanced algorithms, and deriving predictive insights on human threats, particularly fraud detection in the oil and gas industry. This experience ignited my interest in transforming data into actionable intelligence to solve real-world issues. Furthermore, I led a project to visualize vulnerability data, aiming to highlight security risk trends using Microsoft's security detection and monitoring technologies.

In today's fast-paced world, the power of data in transforming security cannot be underestimated. Imagine a world where security isn't just reactive, but predictive and personalized, where AI not only anticipates threats but also offers tailored advice to security practitioners and researchers. AI agents could proactively suggest personalized strategies for threat hunters adeptly navigating across an expansive spectrum of challenges. Similarly, these agents could provide security vulnerability researchers with advice on immediate actions and future strategy in a way that is directly relevant and highly personalized to the unique requirements of software codes. This vision would entail leveraging local data to create domain-specific knowledge and integrating this knowledge into Large Language Models to improve query handling and task automation. We are beginning to see this vision come to life with some projects utilizing knowledge databases such as Graphs technology and ChatGPT to expedite attack path discovery and provide tailored queries for subsequent in-depth analysis.   
  
Pursuing further education at Georgia Tech, particularly the online Master of Science in Analytics, is a strategic step for me, matching the rigor and scope of the on-campus program. This program's interdisciplinary approach, combining business, computation, and analysis, aligns perfectly with my goals. It offers a chance to apply my security experience in practical projects, contributing to my academic success.

As I embark on this journey, I'm eager to deepen my expertise and make meaningful contributions to product engineering, data engineering, and security research after graduating. Georgia Tech's program, known for its blend of theory and practical application, is the ideal platform for my transition. Confident in my background and the curriculum's breadth, I look forward to using my background and Georgia Tech's curriculum to address the challenges of the digital world.

Sincerely,

Kiyoshi Watanabe