**GRAD 068 Internship Course Written Assignment**

**I. Introduction**

I am **Harika Vejendla**, currently pursuing a Master of Science in Computer Science at Old Dominion University (ODU) with a GPA of 3.9. I hold a Bachelor of Technology in Electronics with a minor in Computer Science from LPU, where I achieved a GPA of 7.96. My academic background has provided me with a strong foundation in both technical and theoretical aspects of computing.

Professionally, I have cultivated a diverse skill set through roles in software development and application management. My experience includes working with technologies such as React, Django, and various AI models. This journey has been shaped by roles at prominent organizations such as Accenture and Cognizant, where I contributed to software development and DevOps practices. These experiences have significantly influenced my career goals and professional focus, leading me to specialize in full-stack development and AI integration.

**II. Professional Goals upon Graduation**

Upon graduation, I aim to advance my career in the technology sector, focusing on roles that integrate software development with artificial intelligence and cloud technologies. My specific interests include developing scalable web applications, leveraging AI for innovative solutions, and contributing to cutting-edge projects in tech firms or research institutions. I aspire to work in a challenging environment where I can apply my skills in full-stack development, AI integration, and DevOps to drive impactful solutions and contribute to technological advancements.

**III. Learning Objectives**

During my internship, I focused on achieving the following learning objectives:

1. **Enhance Full-Stack Development Skills**: My goal was to deepen my proficiency in both frontend and backend technologies, specifically using React and Django. I aimed to build robust, scalable applications while integrating with databases and microservices.
2. **Gain Practical Experience in AI Integration**: I sought to gain hands-on experience with generative AI models, particularly GPT-3 and GPT-4, and learn how to integrate these models into practical applications to solve real-world problems.
3. **Strengthen DevOps Knowledge and Practices**: I aimed to apply and expand my knowledge of DevOps tools and practices, such as Jenkins and Ansible Tower, to streamline development processes and enhance deployment efficiency.

**IV. Description of GRAD 068 Internship**

**Overview of Company**:

My internship was with Map Communications, a company specializing in communication solutions, including virtual receptionist systems and call center support services. The company's mission is to leverage technology to improve customer interactions and operational efficiency.

**Job Title and Duties**:

**Job Title**: Software Development Intern

**Duties and Responsibilities**:

* **Full Stack Application Development**: I developed a full-stack application using React for the frontend and Django (Python) for the backend, integrating microservices and working with an Oracle database.
* **Requirement Collection and Solution Design**: I frequently engaged with business stakeholders to gather requirements, designed solutions based on those requirements, and implemented features such as LDAP integration and S3 storage for audio files.
* **AI Integration**: I worked on developing a Generative AI-driven virtual receptionist system, utilizing GPT-3/GPT-4 models and integrating them with Twilio services and voice synthesizers.

**Projects Completed**:

* **Agent Grading system**: Conceptualized and developed an Agent grading quality management system, and implementing the solution using Full Stack where my front end is React and backend is Django creating certain score cards as directed by the business based on the measures.
* **Microservice Integration**: Successfully integrated various microservices into the application, ensuring smooth functionality and communication between different components.

**Impact of Work**:

The projects I worked on had a significant impact on the company's technology stack and client offerings. The agent grading system demonstrated the potential of Agents quality services in enhancing customer service, while the integration of microservices improved the scalability and performance of the application.

**V. Reflection on Experiences**

**Meeting Learning Objectives**:

* **Full-Stack Development Skills**: I successfully applied my knowledge of React and Django, developing a functional and scalable application and gaining deeper insights into full-stack development.
* **AI Integration**: Gaining practical experience with GPT models was highly rewarding. I learned how to implement and fine-tune AI solutions to meet specific business needs.
* **DevOps Knowledge**: My exposure to DevOps tools like Jenkins and Ansible Tower allowed me to contribute effectively to development and deployment processes, enhancing my understanding of best practices.

**Most Powerful Learning Moments**:

The most powerful learning moment was the integration of different microservices and development of the Generative AI-driven system. This project challenged me to integrate advanced AI technologies and provided a platform to demonstrate innovative thinking and problem-solving skills.

**Most Challenging Moments**:

One of the most challenging aspects was managing the integration of multiple microservices, which required meticulous planning and coordination to ensure smooth functionality.

**Important Skills Learned or Practiced**:

* **Technical Skills**: Advanced full-stack development, AI integration, and DevOps practices.
* **Soft Skills**: Effective communication with stakeholders, problem-solving, and project management.

**What I Would Do Differently**:

If given the chance, I would invest more time in optimizing the system's performance and conducting extensive testing to ensure its robustness and reliability.

**Advice for Future Students**:

For future students, I recommend being proactive in setting clear goals, seeking feedback regularly, and being open to tackling complex problems. Effective communication with team members and stakeholders is crucial for success.

**Connection to Major and Ideal Career Path**:

This internship provided a valuable connection to my major and career goals by allowing me to apply my skills in full-stack development and AI technologies in a real-world setting. It reinforced my interest in pursuing a career in innovative tech solutions and data science.

**Recommendation**:

I would highly recommend this internship to other ODU students. It offers valuable hands-on experience and exposure to cutting-edge technologies, making it an excellent opportunity for professional growth.

**VI. Resume**

For an updated view of my skills and experiences, please refer to my resume below:

