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Apple Inc.
One Apple Park Way
Cupertino, CA 95014

Dear Hiring Manager,

I am excited to apply for the Machine Learning Engineer position at Apple. With a strong background in machine learning, NLP, deep learning, and software development, I am confident in my ability to contribute effectively to your team.

Key Qualifications:

NLP Technology: Integrated SpaCy and SpanBERT on GCP for a more intelligent search experience. Utilized Google Search API to input queries like 'Bill Gates Microsoft' and 'top employer', parsed web pages using SpaCy for entity recognition, employed SpanBERT for context understanding, and returned enriched results such as 'Elon Musk Tesla', reflecting deep experience with batch processing and real-time data streaming.

Deep Learning Frameworks: Enhanced VQA systems by integrating VGG16 with attention mechanisms, achieving 87.2% accuracy on the Easy-VQA dataset. Developed a dual-stream model combining custom CNN and VGG16 for image feature extraction, and LSTM for question processing. Merged visual and textual data streams for robust classification. Additionally, developed an image captioning system using multi-head attention and Transformer architecture, achieving a notable BLEU-4 score exceeding 60% with the Flickr8k dataset.

Python and Software Development Skills: Led a team to develop a marketplace platform using Ruby on Rails, focusing on full-stack development from initial design to deployment. Integrated React components to improve frontend interactivity. Automated infrastructure provisioning using Terraform. Managed task allocation across frontend, backend, and testing using BDD and TDD. Designed user-centric features to enhance platform usability, such as user registration with Google integration, address validation with Google Maps API, product creation with PostgreSQL on EC2, and a responsive web interface on S3. Added a product deactivation feature post-purchase and developed a buyer rating system. Championed Cucumber and RSpec for testing, achieving 100% coverage, and leveraged CI/CD practices to ensure high code quality and seamless updates.

End-to-End ML Systems: Led the development of a e-commerce platform on China Mobile Cloud, employing HTML, CSS and JavaScript for the frontend, and Python/Django for the backend. Integrated a collaborative filtering recommendation algorithm based on users behaviors and history to recommend products to target customers, driving a 1.8% monthly revenue increase.

Swift/Metal/Shaders/CoreML: I have been studying Swift and have some development experience, which I am eager to expand upon.

I am particularly excited about Apple's mission to optimize and enhance the support experience for Apple Care customers using AI and ML technologies. I am eager to contribute to your innovative projects and collaborate with a diverse team to deliver cutting-edge solutions.

Thank you for considering my application. You can visit my [LinkedIn profile](#) for more details. I look forward to the opportunity to discuss how my background, skills, and experiences align with the needs of your team.

Sincerely,
Wenjia Zhang