Sanskar Thapa

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EDUCATION

Bachelor of Science in Computer Science **Expected Graduation Date: June 2026**
California State University of Los Angeles *GPA: 3.76*

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, C#, Java, HTML, CSS, SQL, C++, C, TypeScript
Tools and Technologies: Agile, Github, Docker, JIRA, Confluence, Machine Learning, Azure, AWS, HuggingFace, Linux
Frameworks and Libraries: PyTorch, TensorFlow, React.js, Node.js, Bootstrap, Tailwind, Django, MongoDB

WORK EXPERIENCE

Software Engineer Intern | Northrop Grumman **Jun 2024 - Aug 2024**
Python, PyTorch, HuggingFace, Docker, JIRA, Confluence, Github, Agile *Rome, NY*

- Developed and deployed Phi-3 Medium using Retrieval Augmented Generation (RAG), which generated accurate responses from military manuals and **accelerated user onboarding by 67%**
- **Enhanced Large Language Model (LLM) resource efficiency by 50%** through precision reduction of weights and activations, achieving significant computational savings while preserving model accuracy
- Engineered and optimized Docker containers for the LLM solution, ensuring seamless deployment and scalability on Red Hat Enterprise Linux 8 servers

Computer Science Teacher | Everest IT **Jun 2022 - Present**
Python, C#, JavaScript, HTML, CSS, Github *Los Angeles, CA*

- **Educated over 100 students** in Object-Oriented Programming (OOP) principles using Python, C#, and JavaScript, fostering strong foundational skills and practical coding proficiency through hands-on projects and interactive lessons
- Innovated and optimized teaching methodologies by analyzing student performance metrics, and implemented data-driven strategies which **improved comprehension and engagement by 30%**
- **Doubled grading efficiency** through the development and integration of automated unit tests for code evaluation, ensuring consistent and objective assessment of student assignments

Strategic Marketing Alliance Intern | Logitech **Jun 2021 - Sep 2022**
JIRA, Confluence *Los Angeles, CA*

- Produced marketing material for tech products, and **supervised a team of editors** to expedite content creation on 10 videos
- Collaborated in team meetings with senior leadership to streamline scheduling and optimize workflow processes
- Managed critical deadlines of important deliverables, earning commendation for punctuality and reliability in managing tasks

PROJECTS

GPT-2 AI User Imitation **Jun 2023 - Oct 2023**
Python, PyTorch, TensorFlow

- Fine-tuned a 124M-parameter GPT-2 model on extensive user message datasets to accurately replicate individual texting behaviors, enhancing personalized AI interactions
- Implemented Byte Pair Encoding (BPE) subword tokenization on textual data, effectively preprocessing and removing critical metadata to optimize GPT-2 fine-tuning processes
- Executed 5,000 training steps on user-specific text data, achieving reliable and nuanced user imitation performance through targeted model optimization
- **Reduced LLM hallucinations by 30%** by integrating a Retrieval Augmented Generation (RAG) pipeline, significantly improving response accuracy and reliability

Book Store Website **Aug 2023 - Dec 2023**
Python, Django, HTML, CSS, JavaScript, Bootstrap

- **Managed a team of 5 developers** to create a dynamic bookstore website where users can post books, write reviews, and engage in discussions on a message board
- Designed and developed the frontend and backend, integrated features such as book search functionality, book removal, and interactive animations for an engaging user experience
- Integrated smooth user interactions and real-time updates across the platform, while overseeing the entire development process to deliver a high-quality, fully functional website

LEADERSHIP EXPERIENCE

Secretary | Association of Computer Machinery **Jun 2023 - Jun 2024**
JavaScript, HTML, CSS *Los Angeles, CA*

- Supported ACM by attending and managing general meetings, workshops, and fundraising activities
- Managed, created, and scheduled workshop sessions that are being offered to incoming and current students
- Developed weekly newsletters to better inform members utilizing HTML, CSS, and JavaScript