

# Satya Vipul Akarapu

California State University, San Bernardino  
Graduate Independent Study Project Presentation  
CSE 6950

**Title: The Working of ChatGPT and the Ethical, Legal, and Governance Frameworks of Generative AI**

**Date: December 4, 2025**

**Time: 1:00pm**

**Zoom Link: <https://csusb.zoom.us/j/9095375333>**

**Advisor: Yan Zhang**

**Abstract:** Over the course of two semesters, this research investigated generative AI, merging its technical foundations with its legal and ethical implications. The purpose was to learn how huge language models are constructed, aligned, optimized, and regulated. The research began with a technical examination of model architecture, pre-training, fine-tuning, RLHF, inference optimization, and safety layers. It then moved on to data governance, copyright, privacy, fairness auditing, transparency standards, and worldwide regulatory frameworks. The study involved systematic weekly research, a review of technical literature, policy analysis, and an evaluation of established audit and safety measures. The project's findings suggest that modern generative AI necessitates both strong engineering methods and responsible governance. While very capable, these models nevertheless face bias, transparency, and accountability issues. Improved auditing mechanisms, clearer rules, and better synchronization of technical design and society expectations will be required to provide trustworthy AI.