

GRADUATE CERTIFICATE IN APPLIED AI IN DATA SCIENCE

Web Site: <https://twu.edu/computer-science/degree-programs/>

Marketable Skills

Marketable skills prepare students for success in a variety of professional settings. Developed through academic coursework, co-curricular engagement, and extracurricular involvement, these skills include communication, critical thinking, teamwork, ethical reasoning, adaptability, and digital literacy. Whether directly related to a student's major or serving as complementary strengths, marketable skills enhance career readiness and reflect TWU's commitment to producing graduates who are prepared to thrive in today's dynamic workforce.

- **Applied Machine Learning:** Implementing and evaluating supervised and unsupervised learning models to solve real-world problems.
- **Generative AI Application:** Using and controlling state-of-the-art generative models (GANs, Transformers, Diffusion Models) for practical tasks.
- **Prompt Engineering:** Designing effective prompts to elicit desired, context-aware outputs from Large Language Models.
- **Synthetic Data Generation:** Creating artificial datasets to enhance privacy, augment small datasets, and improve model fairness.
- **AI Project Management:** Formulating, managing, and executing an end-to-end applied AI project, from ideation to presentation.
- **Ethical AI Analysis:** Critiquing AI systems for potential bias, fairness, and transparency issues and proposing mitigation strategies.
- **Technical Communication:** Effectively communicating the results and implications of complex AI projects to diverse audiences.