

Phase	Task	Start Date	End Date	Status
Phase 1: Requirements & Planning	Project charter and scope definition	9/20/2025	11/4/2025	Completed
Phase 1: Requirements & Planning	Stakeholder analysis and requirements gathering	9/20/2025	10/30/2025	Completed
Phase 1: Requirements & Planning	Feasibility study and risk assessment	1/13/2025	1/24/2025	Completed
Phase 1: Requirements & Planning	Architecture and design specification	9/20/2025	9/30/2025	Completed
Phase 1: Requirements & Planning	Resource planning and budget allocation	9/20/2025	9/30/2025	Completed
Phase 1: Requirements & Planning	Collect and aggregate network traffic data	11/5/2025	11/5/2025	Completed
Phase 2: Data Preparation & Exploration	Data labeling and annotation	12/13/2025	12/20/2025	In Progress
Phase 2: Data Preparation & Exploration	Exploratory data analysis (EDA)	12/13/2025	12/20/2025	In Progress
Phase 2: Data Preparation & Exploration	Feature engineering and selection	1/2/2026	1/31/2026	Pending
Phase 2: Data Preparation & Exploration	Data preprocessing and normalization	1/2/2026	1/31/2026	Pending
Phase 3: Model Development	Baseline model implementation (Traditional ML)	1/10/2026	1/31/2026	Pending
Phase 3: Model Development	Deep learning model design (LSTM/CNN)	1/10/2026	1/31/2026	Pending
Phase 3: Model Development	Ensemble model creation	1/15/2026	1/31/2026	Pending
Phase 3: Model Development	Model training and validation	1/20/2026	1/31/2026	Pending
Phase 3: Model Development	Hyperparameter tuning and optimization	1/25/2026	1/31/2026	Pending
Phase 4: Testing & Evaluation	Model evaluation on test dataset	2/1/2026	2/10/2026	Pending
Phase 4: Testing & Evaluation	Adversarial robustness testing	2/1/2026	2/10/2026	Pending
Phase 4: Testing & Evaluation	Performance benchmarking and comparison	2/11/2026	2/20/2026	Pending
Phase 4: Testing & Evaluation	Security testing and vulnerability assessment	2/21/2026	2/28/2026	Pending
Phase 5: Deployment & Integration	Containerization (Docker/Kubernetes setup)	2/25/2026	2/28/2026	Pending
Phase 5: Deployment & Integration	Integration with network monitoring tools	3/1/2026	3/5/2026	Pending
Phase 5: Deployment & Integration	Staging environment deployment	3/4/2026	3/8/2026	Pending
Phase 5: Deployment & Integration	User acceptance testing (UAT)	3/8/2026	3/15/2026	Pending
Phase 5: Deployment & Integration	Production deployment and monitoring	3/15/2026	3/21/2026	Pending
Phase 6: Documentation & Handover	Technical documentation and API guide	3/22/2026	3/31/2026	Pending
Phase 6: Documentation & Handover	User manual and operational guide	4/1/2026	4/8/2026	Pending
Phase 6: Documentation & Handover	Training and knowledge transfer	4/8/2026	4/25/2026	Pending
Phase 6: Documentation & Handover	Project closure and lessons learned	4/25/2026	4/30/2026	Pending