

Technology Stack Selection



Backend

- Python (FastAPI)
- Node.js (Express)
- PostgreSQL Database
- Redis Cache



Frontend

- React.js
- TypeScript
- TailwindCSS
- D3.js for visualization



ML/AI

- PyTorch / TensorFlow
- ONNX Runtime
- MLflow for tracking
- Weights & Biases



Infrastructure

- Docker / Kubernetes
- AWS / GCP
- CI/CD (GitHub Actions)
- Terraform

Selection Criteria

Community Support

Performance & Scalability

Security & Compliance

Development Productivity

Cost Efficiency

Maintainability