Phase 1 MVP - Detailed Technical Requirements (4-6 months)

1. AI-Powered Student Profile & Career Matching System

Core Functionality:

- **Student Onboarding Chatbot**
  - Natural language processing for conversational data collection
  - Multi-step profile creation wizard with progress tracking
  - Integration with school authentication systems (SSO/SAML)

Data Collection Points:

- Academic performance (current GPA, subject grades, standardized test scores)
- Extracurricular activities and leadership roles
- Sports participation (position, stats, awards, team level)
- Personal interests, hobbies, and career aspirations
- Learning style preferences and strengths assessment
- Socioeconomic factors (optional, for scholarship matching)

AI Career Matching Engine:

- Machine learning algorithm to analyze student profiles against career database
- Aptitude assessment based on academic performance patterns
- Interest-aptitude alignment scoring
- Generate top 5-10 career recommendations with confidence scores
- Provide career path roadmaps with required education/skills

Technical Requirements:

- LLM integration (GPT-4 or similar) for conversational interface
- Vector database for profile storage and similarity matching
- RESTful API for profile CRUD operations
- FERPA-compliant data encryption and storage

2. Intelligent Scheduling & Calendar Management System

Counselor Dashboard Features:

- **Smart Scheduling Engine**
  - AI-optimized appointment slots based on counselor availability
  - Automatic conflict detection and resolution

- ○ Priority-based scheduling (at-risk students, deadlines)
- ○ Bulk scheduling for group sessions

Integration Requirements:

- Google Calendar API integration
- Microsoft Outlook integration
- Custom calendar widget with drag-and-drop functionality
- Mobile-responsive scheduling interface

Automated Features:

- Meeting reminders (SMS/Email/Push notifications)
- Pre-meeting questionnaires sent to students
- Post-meeting follow-up task generation
- Recurring appointment management

3. Student Preparation & Reporting Module

Pre-Meeting Intelligence:

- **Automated Student Briefings**
  - ○ AI-generated student summary (academic history, concerns, goals)
  - ○ Recent activity highlights and red flags
  - ○ Suggested talking points based on student profile
  - ○ Historical meeting notes and action items

Report Generation:

- Customizable report templates
- AI-powered insights and recommendations
- Progress tracking visualizations
- Export capabilities (PDF, Word, Excel)
- Batch reporting for administrative reviews

Data Visualization:

- Interactive dashboards showing student trends
- Cohort analysis tools
- Risk indicator heat maps
- Academic trajectory projections

4. Academic Program Matching & Course Selection

AI Course Recommendation Engine:

- **Subject/Unit Selection Algorithm**
  - Prerequisite checking and validation
  - GPA optimization strategies
  - Workload balancing across semesters
  - Career path alignment scoring

Features:

- Degree requirement tracking
- Alternative pathway suggestions
- Course difficulty ratings based on historical data
- Professor matching based on learning style
- Schedule optimization (minimize conflicts, optimize campus travel)

Integration Points:

- School's Student Information System (SIS)
- Course catalog database
- Registration system APIs
- Prerequisite verification system

5. NCAA Eligibility (optional for student athletes only) & GPA Management System

Compliance Tracking:

- **Real-time GPA Monitoring**
  - Automated GPA calculations per NCAA standards
  - Core course validation
  - Sliding scale analysis (GPA/SAT/ACT)
  - Eligibility status dashboard

Alert System:

- Red flag notifications for at-risk athletes
- Proactive intervention recommendations
- Required course tracking
- Academic improvement plan generator

Features:

- What-if scenario modeling for course selection
- Summer school planning for GPA recovery
- Transfer credit evaluation
- Multi-sport eligibility tracking
- Division I, II, III requirement differentiation

6. College Rankings & Program Research Platform

Comprehensive Database:

- **Institution Profiles**
    - 5,000+ colleges and universities
    - Program-specific rankings (major-based)
    - Admission statistics and requirements
    - Cost analysis and financial aid data
    - Campus culture and student life metrics

AI-Powered Matching:

- Personalized college recommendations
- Acceptance probability calculator
- Financial fit analysis
- Geographic preference matching
- Program strength alignment with career goals

Features:

- Side-by-side comparison tools
- Virtual campus tour integration
- Application deadline tracker
- Scholarship matching engine
- Alumni connection finder