PM Accelerator

Bootcamp Journey

Use this document as a high-level overview of your journey.

This document will reference both these aspects:

- **Technical Skills Development**
  - Core ML/AI Concepts
  - Gen AI & Data Engineering
  - MLOps & Deployment
- **Project-Based Learning**
  - Agile Scrum Methodology
  - Team Collaborations
  - Real-world Applications

Project Timeline

Here is a high-level timeline of your 11-week journey.

Week 1 - 11 Agenda for AI PM Bootcamp

- **Week 1:** Learning and Onboarding Study all the AI knowledge:

  - [Training for AI Engineers](#)

  - [Engineers' Training Youtube Playlist](#)

- - [Training of AI Designers](#)

  - [Designers' Training Playlist](#)

  - Engineers: Working on **[Job Assistant Agent](#)** or **[Discord RAG FAQ Chatbot](#)**

    - Make sure to join **Office hours** to discuss your thoughts and issues with these projects. (every Sundays)

- **Week 2:** Learning and Onboarding Study all the AI knowledge:

  - [Training for AI Engineers](#)

  - [Engineers' Training Youtube Playlist](#)

  - [Training of AI Designers](#)

  - [Designers' Training Playlist](#)

  - **Designers:** Join Pitch Day & Team Match (within 24 fill out AI products interested in on [Team Match.xls](#) for Cohort 6) - Please wait for the **Cohort6** tab to be created by Dr. Nancy in spreadsheet before enter Name in "Interested" column

    - Designers and PM's need to reach out to each other and determine if they are a good match. Each team can initially have 2 designers. (1 - Senior + 1 - Junior)

      - Format: Full_Name(Role - Senior/Junior)

        - Senior 2 or more years of experience

    - After designers join the team: Discuss User Interview process [PM to lead this discussion] ⇒Prioritize Fast matching this week

- ■ Main communication = Discord (check daily)

- ○ **Engineers:** Working on **Job Assistant Agent** or **Discord RAG FAQ Chatbot**

  - ■ Make sure to join **Office hours** to discuss your thoughts and issues with these projects.

- ● **Week 3:** Continue development
  - ○ Designer building High-Fidelity Designs
    - ■ User Interviews (continue)
    - ■ Prepare for Week 4 presentation to Engineers/Data Scientists
  - ○ Engineers: Working on **Job Assistant Agent** or **Discord RAG FAQ Chatbot**

    - ■ Make sure to join **Office hours** to discuss your thoughts and issues with these projects.

    - ■ Submit your code and video walk through of code logic and provide a running example by filling out this Google Form

- ● **Week 4:** Prepare and Join Pitch Day & Ranking
  - ○ Designers & PM present to Engineers
  - ○ Engineers join Zoom Pitch Day and fill out Google Ranking form. *(Lead Engineers get Ranking choice priority)*
    - ■ Lead Engineer Responsibilities =
      - ● Lead System Architecture Design (Bring thoughts to Office Hours)
      - ● Determine version control process in shared repository (Github) [And Git locally]
      - ● Assist other Engineers (not code for them but help with issues/hurdles)

- Help PM's with technical hurdles

- **Week 5:** Cross-functional team collaboration. Agile feature development
- **Week 6:** Cross-functional team collaboration. Agile feature development
- **Week 7** Cross-functional team collaboration. Agile feature development
- **Week 8:** Cross-functional team collaboration. Agile feature development
- **Week 9:** Cross-functional team collaboration. Agile feature development
- **Week 10:** Testing and Demo ready
- **Week 11:** Demo!

Training Documents:
- **[Training for Engineers](#)** *(Click link)*
- **[Training for Designers](#)** *(Click link)*
- Transformers Illustrated
  - [The Illustrated Transformer – Jay Alammar](#)
- Andrej Karpathy's Neural Networks Zero to Hero
  - [Neural Networks: Zero to Hero - YouTube](#)
- HuggingFace Course
  - [Introduction - Hugging Face NLP Course](#)

Gen AI & Data Engineering (4 Days)

[Generative AI for Beginners | Microsoft Learn](#)

- **Day 1-2: LLM Fundamental**s
  - LLM architectures
  - Prompt engineering
  - Context length and limitations
  - RAG (Retrieval Augmented Generation)
  - Vector databases
- **Day 3: Data Engineering**

- Data preprocessing
- Text chunking strategies
- Embedding models
- Vector similarity search
- Data quality and validation
■ **Day 4: Integration**
  - API integration (OpenAI, Anthropic)
  - Streaming responses
  - Error handling
  - Cost optimization
■ **Practical Exercises:**
  - Build a simple chatbot
  - Implement RAG system
  - Create custom training dataset
■ **Resources:**
  - LangChain Documentation
    ○ [Tutorials | 🦜 🔗 LangChain](#)
  - OpenAI Cookbook
    ○ [GitHub - openai/openai-cookbook: Examples and guides for using the OpenAI API](#)
  - Vector Database Fundamentals
    ○ [What is a Vector Database & How Does it Work? Use Cases + Examples | Pinecone](#)

MLOps & Deployment (3 Days)

■ **Day 1: Development Practices**
  - Git workflow
  - Code review process
  - Documentation standards

- Testing strategies
  - **Day 2: Deployment**
    - Docker containerization
    - CI/CD pipelines
    - Model serving
    - API development (FastAPI)
  - **Day 3: Monitoring**
    - Logging best practices
    - Performance monitoring
    - Cost tracking
    - Error handling
  - <u>**Resources:**</u>
    - MLOps Zoomcamp
      - [GitHub - DataTalksClub/mlops-zoomcamp: Free MLOps course from DataTalks.Club](#)
    - FastAPI Documentation
      - [FastAPI](#)
    - Docker for ML
      - [Docker For Data Scientists](#)

Project-Based Learning (Weeks 3-11)

- Agile Scrum Methodology (Week 3)

  <mark>Please set aside 1 hour for Agile</mark> (Week 1&2)

  📄 Understanding Agile Scrum.pdf

  [What Is Agile Methodology? | Introduction to Agile Methodology in Six Minutes | Simplilearn](#)

[What Is Agile Scrum Framework? | Scrum Framework Explained | Agile Methodology | Simplilearn](#)

[Master the Daily Scrum: Everything You Need to Know for Agile Success! 🚀 | Scrum Basics Simplified](#)

[What are the tools and techniques for documenting and tracking scope and change in agile?](#)

- **Sprint Structure: (***team consensus***)**
  - 1-2 week sprints
  - Daily standups (15 mins)
  - Sprint planning (1 hour)
  - Sprint review (20 mins)
  - Retrospective (20 mins)
- **Documentation Requirements: (***team consensus***)**
  - Sprint backlog
  - User stories
  - Technical documentation
  - API documentation
  - Deployment guides
- **[Tools:](#)** [PM's to choose]
  - Any free Project tracking tool (JIRA, Monday etc.)
    - https://clickup.com/
    - Google Sheets
    - https://linear.app/
    - https://taiga.io/
    -
  - Any choice of documentation tool
  - GitHub for code management
- Team Collaborations (Weeks 4-11)
  - **Team Structure:**

- Roles:
  - Full Stack Engineer
    - Front end Engineer
    - Back end Engineer
    - Fullstack Engineer
  - Data Scientist
  - Data Engineer
  - UX Designer
  - Product Manager
- **Weekly Schedule: (***team consensus***)**
  - Monday: Sprint planning/review
  - Daily: Standups
  - Wednesday: Technical discussion
  - Friday: Demo/documentation
- Real-world Applications (Ongoing)
  - **Project Requirements:**
    - Business value proposition
    - Scalability considerations
    - Cost optimization
    - Security compliance
    - User experience
  - **Deliverables: (***team consensus***)**
    - Working prototype
    - Technical documentation
    - API documentation
    - Deployment pipeline
    - Monitoring dashboard
    - Final presentation

Onboarding Video Link By Anil Thomas: https://youtu.be/ZBEoZYmMCMc
[Cohort 5]

Success Metrics:

1. Functional prototype
2. Clean, documented code
3. Comprehensive testing
4. Clear documentation
5. Effective presentation
6. Team collaboration

Tools & Technologies
[W 05. Tools & Technologies.docx]

Mentor Kat Sao's Schedule & Recordings (Cohort 3)

Week 1: Friday, January 31 @11am - Duration: 1hr
   Session Theme: Introduction, What to expect, Timelines, Q&A
https://youtu.be/_v6hyhS_U0U

Week 2: Friday, February 7 @ 11am - Duration : 30 mins Session Theme:
Q&A: General - (Session Canceled, No attendees)

Week 3: Friday, February 14 @ 11am - Duration 1hr Session Theme:
Prepping for Team Matching & I'm on a team, now what?
https://youtu.be/d7bCIwlXZsY

Week 4: Friday, February 21 @ 10am - Duration 30 mins Session Theme: AI
Product Lifecycle https://youtu.be/sc8g3RvwBBk

Week 5: Friday, February 28 @ 11am - Duration 30 mins Session Theme:
Outcome Mindset & Delivering Value https://youtu.be/ADjjqyM1zP4

Week 6: Friday, March 7 @ 11am - Duration 30 mins Session Theme: Q&A:
Retrospective, how's it going? (no recording) No Recording

Week 7: Friday, March 14 @ 11am - Duration 1hr Session Theme: Q&A and
Retrospective - No recording

Week 10: Friday, April 4 @ 11am - Duration 1hr Final Session Theme: Demo
Practice & Retrospective - CANCELED