CS 224G Introduction

Programming AI Apps in the LLM Age

Administrative Details

- Instructors
  - Jan Jannink yan@stanford.edu, John Whaley jwhaley@stanford.edu
  - CAs : Akshay Gupta, Raghav Ganesh
- If you haven't already gotten in, please request access to the slack
  - https://cs224g-winter-2025.slack.com/
- Office hours held in Gates 358 (Wednesday 2-4PM)
  - Reach out to me for zoom any time
- Feedback
  - How we adapt the class to your needs

Who we are, Why we are doing this

- Jan and John, CS PhDs, Serial Entrepreneurs, Instructors
- Exits in previous AI startups, UnifyID (John), VoiceBase (Jan)
- Founders of new AI startups, Synthpop (Jan), Inception Studio (John)

- LLM advances permit a re-envisioning of all tech startups
- Unique opportunity to share knowledge as the trend emerges

Course Format

- 10 week crash course (bootcamp style)
- Dream up a project (this week)
- Form/Join a team (next week)
- Develop a solution
- 2 week sprints
- Demo every sprint for 4 sprints
- Finish with Demo Day Event

Course Style

- Agile, just in time approach
- Don’t expect everything to be fully prepared in advance
- Course Slack is the best way to stay up to date
- Presence and participation is a must!
    - We’re giving it our all, and so are the CAs
- The space is changing so quickly
- Other approaches would not do the topic justice

Course Timeline

- Jan. 9 Initial project proposal presentations
- Jan. 14 Project proposals due
- Jan. 16 All project teams formed (end of first sprint)

- Jan. 30, Feb. 13, Feb 27 Project checkpoints (demos and push to GitHub)
- Mar. 13 Final Sprint and Demo Day (investor & entrepreneur review)

Project Proposals (due Jan. 14)

Name

Email (for LLM credits)

GitHub alias (to submit projects)

Project Topic/Subject

Team members/open slots (2-5 recommended)

Project Areas

- Multimodal apps : sound, language, image, video
- Data Extraction, Scraping, Form Filling
- Assistants, Interns, Copilots
- Personalization, Content Rewriting
- Coding, APIs
- Law, Medicine, Government (anything with manual document processing)

Project Grading

- 10% participation and presence (class, slack)
- 45% spread over 3 project checkpoints
- good instructions for testing
- actual code contribution (git commits)
- 45% final project demo

- we'll evaluate feedback from the class, student and team contributions

Agile Project Methodology

- Quickly come up with something
- Present on Thursday
- Talk it up with the class on Slack
- Find similar proposals and interests
- Refine, revise based on conversations
- Form compatible teams, we don’t have room for solo projects
- More iterations almost always produce better outcomes

First Project Ideas

Memory Assistant

Exploring how to let an LLM go through all of the experiences and data of the day

Jan Jannink, John Whaley CS 224G - 1/7/2025

Product Workflow Mgmt

Use LLM capabilities to achieve for product management what has been built for software engineering

Gaming APIs for NPC Character State

Not only generate actions for virtual characters, but also all the history and state needed to maintain it

Identify and Fix Educational Gaps

Tailored support and tutoring for students to improve test results

Airplane Pilot Training

Analyze a flight and come up with advice and plans for next flights

Community Content Moderation and Management

Help you understand the content you are interacting with