AC215 FALL 2024 SCHEDULE

Week	Date	Session	Lecture	Milestones/HW due dates
1	9/3	1	Introduction	
	9/5	2	Virtual Enviroments and Virtual Machines	
2	9/10	3	Containers I	
	9/12	4	Containers II	
3	9/17	5	Data Pipelines/ Data Management: Extract, Transform, Load (ETL) and Data Version	
	9/19	6	TF Data, TF Records, PyTorch Dataset, DataLoader, Cloud Storage	M1 - 09/20
4	9/24	7	LLM tools and agents 1: LangChain, LlamaIndex, API calls, RAG, AI agents	
	9/26	8	LLM tools and agents 2: LangChain, LlamaIndex, API calls, RAG, AI agents	HW1 - 09/27
5	10/1	9	Model Optimization: Distillation, Quantization, Compression	
	10/3	10	LLM fine tuning and LORA	
6	10/8		PROJECT WEEK	
	10/10			
7	10/15	11	MODAL Guest Lecture Zoom	
	10/17	12	Advanced training workflows: experiment tracking (W&B), multi GPU, serverless training (Vertex AI)	M2 - 10/18
8	10/22	13	Model Deployment: Hosting, APIs, and Serving LLMs	
	10/24	14	Model performance monitoring, data drift, or other post release items	
9	10/29	15	Testing, Cloud Functions, Cloud Run, Kubeflow, Vertex AI Pipelines	
	10/31		Midterm	M3: MIdterm Presentation 10/31
10	11/5	16	Automating Software Development: CI/CD with GitHub Actions and other tools	
	11/7	17	App design, setup and code organization	HW2 - 11/8
11	11/12	18	APIs & Frontend (Frontend - React (SJ) Optional Extra to be Scheduled)	
	11/14	19	Deployment: Ansible	M4 - 11/15
12	11/19	20	Scaling: Kubernetes	
	11/21	21	Final: CI/CD releases etc	
13	11/26		THANKS GIVING WEEK	
	11/28			
14	12/3		PROJECT TIME	HW3 - 12/2
	12/18		DELIVERABLES DEADLINE	M5 - 12/11