PeopleSpace

INTERNATIONAL AI STARTUP SHORT TERM TRAINING PROGRAM
(Summer Program for 2022)

Who is this program for:
Summer 2022 is designed specifically for Korean University Students
Duration: 4 Weeks 7/18/2022 - 8/12/2022
Training Cost: $1000/ student training
Room: $1000/ student
Location: PeopleSpace (Irvine, California) USA

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We design and run our short-term AI program to help students gain applied AI and Marketing skills while completing a project. This program is an assimilation of an 8 week AI startup accelerator for engineers.

PSAI Winter
4 Weeks AI Training Program consists of:

1. AI Short Term Training and weekly assignments
2. AI Applied Work Based Project
3. Weekly startup lessons and assignments
4. Weekly peer review with mentors (Minimum mandatory 5 Hrs per week)

Short-Term Training	Fast AI Study	4 Weeks Daily Study, discussion with mentor 3 hrs/week					
AI Project	**2 Project, 4 Teams (Actual project TBD)**	**Mentor Hrs. Mandatory 2hrs/week**					
		Mon.	Tues.	Wed.	Thurs.		
	Discussion 1.5 hrs	Mandatory		Mandatory			
		Project A	Project B	Project A	Project B		
	Project Mentor 1 hr per team	Team 1	Team 3	Team 1	Team 3		
		Team 2	Team 4	Team 2	Team 4		

***# of projects and times is dependent on the group size.

Extra Curricular:
Technical subject meetups; (if time differences are allowed) Evenings List of PS events:
https://www.meetup.com/peoplespace/ OCRUG, OCJUG, OWASP, OCANDROID, DEEP
LEARNING, AI & ANALYTICS

PROJECTS:
Projects are tailored and coincide with AI Curriculum with startup components included.

TENTATIVE PROJECTS: (Subject to change depending on size of class and level of competency.)

Their own proposed project. (One they have not done before)

Background Removal with AI

https://docs.google.com/document/d/1uwurnj0Nba3oLHkDmpwBi19KUhAQKM61pvFMeVOiD2Y/edit#heading=h.la3koologj3i

Fashion Items Features Detection

https://docs.google.com/document/d/1jcszG2ObP02C_QzDbVoBDwagjpbuX9_jc3BY69IfK54/edit#heading=h.xik16qgrd67j

Pre-Req
- Please sign up for free trial at https://cloud.google.com/ 2 weeks prior to arrival. - Basic understanding of python - Basic understanding of Git

Week #	Topic
Week 1	Image Classification | Startup Lesson #1
Week 2	Data cleaning and production; SGD from scratch | Learn to pitch, Building a website
Week 3	Data blocks; Multi-label classification; Segmentation | Refine website
Week 4	NLP; Tabular data; Collaborative filtering; Embeddings | Pitch

		with video	

Sample detailed concepts the first two sessions:

	Hours	Description	Weekly concepts and Activity (FastAI & Project)	Startup Activity
Wk 1	20-25	The key outcome of this lesson is that we'll have trained an image classifier which can recognize pet breeds at state of the art accuracy. The key to this success is the use of transfer learning, which will be a key platform for much of this course. We'll also see how to analyze the model to understand its failure modes. In this case, we'll see that the places where the model is making mistakes is in the same areas that even breeding experts can make mistakes.	Week 1 Concepts Neural Nets: a brief history Stochastic Gradient Descent (SGD) Reading Fast AI Documentation Applications: Image Segmentation Classifying a review's sentiment based on IMDB text reviews Predicting salary based on tabular data from CSV Project Deliverables: * Git Repo	Draw and espressi on
Wk 2	20-25	Learning how to build your own image classification model using your own data, including topics such as: -Image collection -Parallel downloading -Creating a validation set, and -Data cleaning, using the model to help us find data problems. In the second half of the week we'll train a simple model from scratch, creating our own gradient descent loop.	Week 2 Concepts Classification vs Regression Validation data set Epoch, metrics, error rate and accuracy Overfitting, training, validation and testing data set How to choose your training set Transfer learning, and why it works so well Fine tuning Arthur Samuels approach to neural networks Model Interpretation, P value Null Hypothesis, Significance Testing Recommendation vs Prediction Predictive Modeling Deep Learning in Practice: Using an Image Search API (Bing) Data Block API Applications: * Vision techniques used for sound * Using pictures to create fraud detection at Splunk * Detecting viruses using CNN Project Deliverables: * Mockups / Wireframes Terms * label *	30 Second Pitch

			architecture * model * parameters * fit * train * pretrained model * fine tune * epoch * loss * metric * validation set * training set * overfitting * CNN	

Final grade and assessment based on:

1. Midterm assignment
2. Project individual grade
3. Project group grade
4. attendance
5. self and peer review
6. extra credit