

Udacity nanodegree overview

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Overview

- 1 Nanodegree.. what does it mean?
- 2 Computer vision nanodegree overview

Nanodegree.. what does it mean?

Definition

A Udacity Nanodegree Program is a unique online educational offering designed to bridge the gap between learning and career goals. (Udacity) Set of the learning courses with a focus on the practical side (Kurbakov D.).

Who is a teacher?

Short answer: Partners with Udacity Full time employees.

Partners;

- Amazon
- Google
- AT&T
- Lyft
- Kaggle
- NVidia
- Facebook
- IBM
- ...

What nanodegrees are available?

Short answer: a lot.

The most interesting:

- Machine Learning Engineer
- Deep learning
- Deep reinforcement learning
- Self-driving car Engineer
- Artificial Intelligence
- Flying car and autonomous flying engineer
- Robotics software engineer
- Computer vision
- Cloud dev ops engineer
- Cloud developer

How the nanodegree structured?

Core curriculum:

- Each of the curriculum has N parts (topics).
- The part can be optional.
- Non-optional part has the project, that is required to pass, if you want to graduate.
- Non-optional part can have an optional project.
- Only 1 deadline.

Extracurriculum:

- Each of the curriculum has N parts (topics).
- All parts are optional
- No projects
- No deadlines

Community

Once you enroll into the course, you will have:

- Access to all courses and projects
- Access to the slack
- Slack channel with everyone who is doing the nanodegree with you
- Assigned to you mentor (once a weekly group call, once a week 1:1 call)
- Access to the career coach
- All project reviewed by human

Once you graduate:

- Access to the alumni portal

Price

Subscription modell
339 Euros per month

Computer vision nanodegree overview

Overview

- 1 Created in cooperation with NVidian and Affectiva.
- 2 Scheduled for 3 months with workload 10-15 hours per week.
- 3 24 people on the slack group + mentor.

Ph.D. in Electrical and Electronical Engineering
Sr. Software Engineer in LG Electronics, located in San Jose, CA, USA.
Working on the simulator for the testing autopilot (tracks).

Course structure: Core curriculum

Topics:

- 1 Introduction to the computer vision
- 2 Optional: cloud computing
- 3 Advanced computer vision and deep learning
- 4 object tracking and localization

Introduction to the computer vision

- 1 Coding blue/green screen
- 2 Convolutional filters
- 3 ML in computer vision

Advanced computer vision and deep learning

- 1 YOLO
- 2 RNN
- 3 LSTM

Object tracking and localization

- Understanding of motion
- Kalman filter
- State of the motion and localization

Projects

Projects:

- 1 Facial keypoints detection
- 2 Image captioning
- 3 Landmark detection and tracking (SLAM)

Facial keypoints detection

Image captioning

Landmark detection and tracking (SLAM)

Conclusions

Q&A