Teaching Deep-Learning and Self-Driving Car Foundations in India

- I worked for Udacity India were I conducted training sessions to teach Infosys employees about deep learning foundations and self-driving car related technologies. I was very happy about the feedback I received as a session lead getting a daily average of 4.7 / 5 stars [**10-minute teaching demo**].

Machine Learning Workshop and Adversarial Research Talk for Trend Micro PH

- I conducted a workshop to help Trend Micro Philippines prepare for their interregional office deep-learning competition. About behavioral cloning, I talked about data selection, feature selection, feature preprocessing, data augmentation, debugging, and other tips and tricks to improve a model's performance. [**Workshop materials**] [**Accompanying starter code**].
- The workshop feedback was very positive that they commissioned me to speak for their next event. I chose to talk about adversarial examples which was very fun to prepare, I read a lot of research papers about the topic. [**Article**]

Cryptography Foundations

- Clean Python scripts (with tests and great documentation) that illustrate basic cryptography concepts based on Coursera Stanford Cryptography I course and more. I plan to add more scripts as I come across other fun cryptographic challenges, maybe include blockchain-related scripts as well.

Udacity Nanodegree Alpha-Testing

- Working as a remote mentor for Udacity Nanodegree programs one of my tasks was to alpha-test possible student projects by doing the requirements myself and identify pain-points. Many of them are machine-learning related.

Robots and Visualizations

- Interactive Robot for Brand Reinforcement (3-Minute Video), I programmed and lead the creation of a 45-inch tall robot [documentation] that helped the company win the Campaign Southeast Asia Creative Agency of the Year Award 2016.
- Visualizations and demonstrations of algorithms like: (1) Genetic Algorithms in Rust, (2) Unscented Kalman Filter, Particle Filters, and PID control in C++.
- I wrote code from scratch to make a hexapod robot dance for PyCon PH 2016.
- I rapidly prototyped a bunch of robots and other creative technology projects.