Report of my internship

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MERIT 7th
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Company
Wantedly Inc.

Period
06/2019 ~ 08/2019 (3 months)

Theme
Acquiring the image processing technique with the machine learning and the construction basis for the system.

Internship contents

I studied about image processing with the machine learning in the Wantedly Inc. Image processing technology has experience great progress due to the improvement of the machine learning technology. Especially, in the biology and medical fields, researches that look for target things or track the movement of them have already made great progress and some of them are used in the society.

I am studying the optical properties of magnetic materials in Takahashi laboratory. In my research field, we often use “optical magnetic imaging”. This experimental technique makes use of the fact that oscillation plane of the light rotates in the magnetic material (Faraday effect) and takes pictures of the magnetic structure of the material. I thought that I can use the image processing technology in the analysis of the imaging data. Therefore, I challenged the internship in the Wantedly Inc. that has high technology in this field.

In my internship, I used many business card images. In this database, there were many images with various positive and negative or color tone because of the difference of the date and person who

took those images. I constructed a machine learning model that judges whether two card images were the same or not. I used face recognition model that released in 2018 as a base and improved that model. I succeeded in making the model with 95% accuracy in 600,000 kinds of cards. In addition, I constructed a server from the beginning to use this model from existing servers.

In this internship, I learned not only image processing knowledge but also the technique for constructing the basis for the system. I will create the base system for analyzing the image data in my laboratory and push my research forward.

Acknowledgement

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