

Internship Report

This report contains the details of my six-month internship at Seervision AG based in Zurich. I worked in the perception team under the supervision of Lucy Brandenberger and Dalia El Badawy.

Seervision AG is an ETH spin-off, which creates innovative camera automation software powered by AI that makes live video production effortless. It has an international customer base and covers many different use cases, including in-house studios, keynotes, conferences, lectures, etc. It has offices in Zurich and Athens with around 35 employees.

The perception team I worked in has 5 formal employees and 3 interns. This team closely works with two other development teams: the automation team and the operation team. Our team focuses more on letting the camera understand the scene while the automation team deals with automatically controlling the camera based on its understanding. The operation team provides some daily support. All three teams together create the complete software pipeline.

I, as a computer vision intern, spent about 70% time researching and 30% time helping software development. My research topic is long term person reidentification. The limitation of our current person reidentification method is that when the target person walks out of the view for a while and backs again, he will be thought as a new person. I analyzed the common failure patterns and investigated the effect of different factors of the input image on the embedding distance. To achieve this, I organized a data collection in the studio with 20 volunteers and made a customized dataset consisting people with various factors including the clothes color, poses, shot types, background, etc. What's more, I prototyped, implemented and benchmarked state-of-the-art approaches in person reidentification from different perspectives. At the same time, I helped solve failure cases from the feedback of our customers, add new features to our product and maintain the code base. For every work I did, I kept them well-documented.

The past six months is a valuable experience for me. It was my first time working in the real company instead of the university. It helped me better understand the difference between the industry and the academy, which will be an important factor in my future decision. I further improved not only my professional skills, but also my social capabilities. I got to know more programming techniques and ways to collaborate across a team. Within a very young and international company, we are all open to different opinions and are willing to take new ideas from others. There were some interesting team activities from time to time, which gave me opportunities to be familiar with people from other teams and with various cultures.

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Kaiyue Shen