

Sieuwe Elferink

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SUMMARY

I am an embedded systems student with deep understanding of Artificial Intelligence and Computer Vision techniques. I have experience in the hardware and software field ranging back to 2016 where I started learning new concepts from online tutorials. After learning a new technique, I applied it in the real world in the form of a self-made project which are documented online and can be found on my website. During this time, I have learned to independently learn new concepts and think outside the box to solve complex problems. Because I was of a young age during this time, I did not have the best computer or large budget. This made me learn to adapt and come up with innovative solutions when there are computational or budget constraints. During high school I followed the bilingual course and achieved the International Baccalaureate (IB) certificate which means I can think critically and express myself in the English language. I have experience in working with large teams using an agile workflow which is also my preferred working environment.

COMPUTER SKILLS

Languages

- Excellent in: C#, Python
- Good with: C++, C, Java

Software

- Excellent in Computer Vision: OpenCV, SORT
- Excellent in Artificial Intelligence: PyTorch (TensorFlow)
- Good with Platforms: CUDA, UWP, Git

Hardware

- Excellent in practical application: Soldering, Assembling, 3D printing, Repair
- Good with Platforms: ARM, AVR
- Good with Design: SolidWorks, NX, KiCad

SOFT SKILLS

Languages

- Excellent in: English spoken and written.
- Excellent in: Dutch spoken and written.
- Good with: German spoken

Workflow

- Excellent in: Teamwork, Documentation
- Good with: SCRUM / Agile

EXPERIENCE

Video analytics specialist

2019 - 2020

Open Remote

- Implemented Ai model with sorting algorithm for large video-based crowd detection

- Developed image-based crowd analytics using Ai detections
- Integrated results from crowd analytics into Open Remote Manager

Video analytics specialist 2019 - 2020

Fontys, Lectorate AI & Big Data

- Developed and implemented a vision-based beehive health detection system
- Implemented and trained an Ai model which can classify the health of the Brood pattern of honeybees
- Researched and Developed a vision-based system to count honeybees

Telemetry System Engineer 2018 - present

University racing Eindhoven

- Developed a mechanical steering system for the URE14E electric race car
- Developed and implemented a universal real time Telemetry System

Video and Control scientist 2018 - 2019

Fontys, University of Applied Science

- Developed computer vision system which detects and localizes a physical marker
- Developed and tested control system which centers an autonomous drone above a physical marker.

Computer scientist 2016 - present

Own projects

- Researching and developing a vision based autonomous vehicle which drives on Public roads using an Ai control model.

EDUCATION

Fontys, University of Applied Science 2018 - present

Eindhoven, Brabant

- HBO bachelor ICT technology
- Achieved Foundation Course

Farel Academy 2012 - 2018

Amersfoort, Utrecht

- Achieved: General secondary education (HAVO)
- Achieved: International Baccalaureate (IB) certificate for English
- Enrolled in Socrates International Honour Society

HOBBIES

After school I mostly start working on my own projects. These projects range from self-opening doors to self-driving vehicles. When a project is finished, I make a YouTube video, documentation and upload the code to GitHub so everyone can try it for themselves for free. This has helped me develop excellent documentation skills. Besides doing projects I also try to push my limits with action sports. I do motocross and finished second in the Dutch downhill competition with downhill mountain biking. Any repairs on my dirt bike, mountain bike and electronical devices like my smartphone are performed by myself. This helped me develop excellent practical skills. I started a business in buying broken dirt bikes and selling them once repaired.