Junior Geoinformatic Specialist at DHI GRAS

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During the period 1/8/2020 to 30/11/2020 I have held an internship position with DHI GRAS (Danish Hydraulic Institute at subdivision Geographic Resource Analysis & Science) in the Remote Sensing Analytics team. DHI as a whole specializes in water solutions and GRAS focuses satellite images and data processing within the hydrological domain. GRAS was founded 20 years ago and has in the recent years been growing rapidly due to an increasing interest in the solutions available through remote sensing.
I found GRAS through an acquaintance, who has been involved in projects with them through ESA and UNEP. I was welcomed to the team as an intern and later found employment with them as a student assistant and as co-supervisor to my master's thesis. I was for all intents and purposes considered a full member of the team and involved in the decision making, analysis, and client communication. I chose to extend my internship to four months in order to get the most experience but will continue working with them in an assisting capacity until my thesis is finished.

I have been involved in several projects varying in both topic, complexity, and length. Additionally, I have been tasked with specific objectives for projects but also been responsible for entire projects myself. Below is a short list of projects and tasks I did during my internship:

- Developing a machine learning algorithm for estimation of soil moisture using high resolution SAR imagery.
- Classification of marine habitats in the coastal regions of Sweden.
- Correction of a digital elevation model in Bangladesh.
- Identifying artificially irrigated fields and classifying the crop type in the Omo-Turkana basin in Eastern Africa.
- Satellite image search and delivery upon request.
- GIS harmonization tasks.
- Coding in Python and JavaScript.

My internship at DHI GRAS has helped me develop new skills within remote sensing and has shown me the capabilities and opportunities of this field. My experiences were not limited to remote sensing as much of the work have been dealing with computer science—a field to which remote sensing is rapidly converging in many aspects. Additionally, I have gained hands-on experience in a professional setting with project proposals, consultancy, acting as a vendor, and customer/sub-contractor dialogues. The experiences I had and the skills I developed during my internship are invaluable in moving forwards with a career in this field.