

# Frederik Gram Kortegaard

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## Professional Profile

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I am a creative developer with a passion for optimization and visualization of information. I function best in teams and focus on continuing to better myself and my colleagues through constructive communication.

## Skills

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### ***Programming languages:***

C/C++, Python (8 yrs),

Java, Javascript,

PHP, Golang,

Lua, C#.

### ***Systems / Tools:***

Unix/Linux, Windows, Git,

Docker, Kubernetes, Elastic,

SQL, AWS, Kibana, REST.

### ***Expertise:***

Machine Learning Algorithms

Natural Language Processing

Quantitative Data Analysis

Computer Vision Algorithms

Deep Learning and Framework Engineering

### ***Data Science specifics:***

NumPy, SciPy, Pandas, SpaCy, PyTorch,

OpenCV, Prodigy, NLTK, Scikit-Image,

TensorFlow, Scikit-Learn, Matplotlib.

## Work Experience

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### **Universal Robotics**

- Data Analyst (*Machine Learning*)

(February 2020 - Current)

At Universal Robotics, I am employed as a student worker doing data analysis and machine learning to gain insight into both mitigation and the causation of possible operational faults in collaborative robots.

### **Findwise AB**

- Junior Consultant (*Machine Learning*)

(January 2019 - February 2020)

At Findwise I created and implemented Machine Learning and Natural Language Processing based services into a pre-existing data analysis pipeline using REST architectures, serving primarily as a part of our GDPR-compliance product chain.

In connection to this, I built and trained numerous Neural Networks using the SpaCy and Prodigy libraries and further designed Computer Vision algorithms and techniques to find and extract relevant metadata from various non-trivial file types. From this, I expanded my knowledge base not only in regards to the workflow and process of enterprise development, but also scalable and maintainable architecture and the tools thereto.

## Personal Projects

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### **Automated Stock Trading and Analysis Platform**

- Developed a time series analysis tool for matching patterns and assessing similarity of datasets over different value- and timeframes using Dynamic Time Warping (abbr. DTW)
- Used sentiment analysis to create correlation statistics for stocks
- Created secure functions to handle automatic online transactions of multiple currencies across different platforms

### **Descriptive Image Search Engine**

- Created a search engine that allowed users to search a given database of images by describing the images using conversational language.
- Developed a mixture of Computer vision and Machine learning based analysis tools to detect and recognize objects in images
- Utilized natural language processing technologies to create and optimize dynamic search features on the platform
- Built a modular backend platform that could be seamlessly integrated into frontend image galleries.

### **Social Media Automation, Growth and Sentiment Analysis.**

- Automated social media content creation and publishing using a self-developed Python based platform
- Developed a custom API to interface with large scale social media sites
- Grew a social media profiles follower base by 457% over a four day period using said software
- Setup data pipelines using relevant APIs to automatically gather, clean and format large datasets with Python
- Implemented the Python Natural Language Processing Toolkit (NLTK) to automate dynamic sentiment analysis of keywords to hyper personalize and improve rating of published content

## Education

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### **University of Southern Denmark, Odense.**

(2019 - Current)

- Bachelor of Computer Science, B.Sc. CS, (Datalogi)

### **VUC Syd, Haderslev**

(2017 - 2019)

- A - level Mathematics, Biology and Chemistry.