

# Max KRAAN

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## EXPERIENCE

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| MAY 2017 - NOV 2019  | <b>Data Scientist at Bayes Esports Solutions</b> <ul style="list-style-type: none"><li>• Researched and implemented production-ready machine learning models to predict the outcome of eSports matches (numpy, pandas, spark, scikit-learn)</li><li>• Developed and maintained a python backend to respond to gRPC queries from clients and perform real-time inference (Flask, RabbitMQ, Protobuf, gRPC)</li><li>• Developed an automated training and evaluation tool for internal data science usage / workflow optimization (Django, Celery, Bootstrap4)</li><li>• Developed a "suggestion" API which de-duplicates and enriches scraped data (Flask, MongoDB)</li></ul> |
| SEPT 2016 - MAY 2017 | <b>Data Analyst at LOCAFOX GMBH</b> <ul style="list-style-type: none"><li>• Developed and maintained ETL processes for business intelligence use cases</li><li>• Developed on a database for use by product and marketing stakeholders</li><li>• Adhoc data analysis for finance, marketing, and product stakeholders</li></ul>  |
| DEC 2012 - MAY 2017  | <b>Head Teacher of Physics at IB ACADEMY</b> <ul style="list-style-type: none"><li>• Taught classes of up to 18 students for 4-day intensive revision courses</li><li>• Developed and maintained physics course material which is still used to this day</li></ul>   |

## EDUCATION

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| JULY 2016 | <b>Master of Science in APPLIED PHYSICS</b><br>77/100 <i>cum laude</i>   <b>Cambridge University</b> , Cambridge, UK<br>Thesis: "Investigating the thermoelectric properties of $\text{Bi}_{2-x}\text{Sb}_x\text{Te}_3$ Nanowires" |
| JUNE 2015 | <b>Bachelor of Science in PHYSICS and MATHEMATICS</b><br>3.5/4 <i>cum laude</i> , <b>University College of Utrecht</b> , Utrecht, NL<br>Thesis: "Simulating the Optical Properties of Silver Nanoshells"                           |

## PUBLICATIONS

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| MAY 2017 | <i>Materials</i>   10.3390/ma10050553<br>"Structure and Thermoelectric Properties of $\text{Bi}_{2-x}\text{Sb}_x\text{Te}_3$ Nanowires Grown in Flexible Nanoporous Polycarbonate Templates." |
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## PROJECTS

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| APRIL 2020 | <b>Achord</b><br>Max for Live application for real-time detection of the harmonic pitch profile (HPCP) of an incoming audio signal. Spectral processing is implemented in Node.js. |
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# LANGUAGES

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## Data Science

numpy ●●●●●●  
pandas ●●●●●●  
scikit-learn ●●●●●●  
tensorflow ●●●●●○  
pytorch ●●●●●○  
pyspark ●●●●○○



## Backend

flask ●●●●●○  
django ●●●●●○  
rabbitmq ●●●●○○  
express ●●●●○○  
streams ●●●●○○



## Spoken

english ●●●●●●  
dutch ●●●●●●  
german ●●●●●○

