

# Charel Felten

Amsterdam, NL

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## Education

### University of Amsterdam & Vrije Universiteit Amsterdam

M.Sc. Computational Science

- Honors: summa cum laude (Grade 9.0/10)
- Courses: *Computational Finance, Data Mining Techniques, Complex Systems, Agent-based Modelling, Stochastic Simulation, Bioinformatics*

Amsterdam, NL

September 2020 –  
July 2022

### University of Luxembourg

B.Sc. Computer Science

- Grade: 8.7/10
- Courses: *Software Engineering, Information Management, Intelligent Systems, Security*

Esch-sur-Alzette, LU

September 2017 –  
July 2020

### Sorbonne University

Licence informatique

- *Exchange semester in the Erasmus program*

Paris, FR

January 2019 –  
May 2019

## Professional Experience

### Shell

Master's thesis research internship

- *Modeling various aspects of interest of a dutch electricity market*
- *Using machine learning to predict auction arrivals and volumes*
- *Valuation of an energy asset using a real options approach*
- *Risk quantification and sensitivity analysis*
- *Thesis viewable at [cfx.lu/thesis](https://cfx.lu/thesis)*

Amsterdam, NL

November 2021 –  
July 2022

### MENEJ Ministry of Education, Children and Youth

Substitute teacher in Kindergarten and primary school

- *Employed to satisfy higher than usual demand of school personal during the Covid-19 pandemic*

Mersch, LU

May 2020 – July 2020

### MNHN National Museum of Natural History

Full-time summer student job in the informatics department

- *Developed multiple small web tools to improve the work-flow of employed researchers, such as a PHP tool to convert between coordinate systems in Excel sheets*
- *Automated the process of converting information from preexisting documents into XML format ready to be fed into the Genbank sequence database*

Luxembourg, LU

June 2019

Full-time summer student job in the graphic design department

- *Created a brochure for an upcoming exposition*

August 2015

## University of Luxembourg

Part-time student job in the computer science department

- Continued development on a website for the Bachelor in Computer Science
- Wrote various PHP scripts to import and display existing data sourced from Google Sheets

Full-time summer student job in the computer science department

- Developed a Wordpress website template for the Bachelor in Computer Science

Esch-sur-Alzette, LU

October 2018 –

February 2019

August 2018

## Interests & Skills

### Various

- Winner of the 2021 VU Data Mining Kaggle Competition  
[kaggle.com/c/2nd-assignment-dmt-2021](https://kaggle.com/c/2nd-assignment-dmt-2021)
- Developed and published a minimalistic note-taking app in the App Store  
[cfx.lu/remindme](https://cfx.lu/remindme)

### Programming

Advanced knowledge in

- Python: NumPy, SciPy, Matplotlib, Pandas, Numba (5 years experience)
- Swift: SwiftUI, UIKit, iOS Development

Basic knowledge in

- Unix: bash, grep, sed
- PHP, SQL, Ocaml, Java, Javascript (React), C

### Competencies

- Simulation and modeling (Monte Carlo, differential equations, ...)
- Quantitative and statistical analysis
- Machine learning and data science
- Software engineering and programming patterns
- Knowledge of risk management methods
- Git, Github
- iOS Development (SwiftUI and UIKit)

### Languages

- Luxembourgish (native)
- German (fluent)
- French (fluent)
- English (fluent, Toefl IBT 110/120)