### **Charel Felten**

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## **Education**

#### University of Amsterdam & Vrije Universiteit Amsterdam

M.Sc. Computational Science

- Honors: 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*

**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

Luxembourg, LU

June 2019

#### 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

# August 2015

Full-time summer student job in the graphic design department

• Created a brochure for an upcoming exposition

#### **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
- Developed and published a minimalistic note-taking app in the App Store 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)