

## Financial Data Science - an emerging discipline

### Content and structure

#### Part I. Practical cases

##### A. Banking transactions and fraud

Evaluate the capability of global and local fraud detector based on the autoencoder architecture in the context of banking transactions

##### B. Portfolio Selection

Selecting bear-market-resistant equity portfolios with a neural network

#### Part II. Financial Data Science: theoretical background

The rise of Artificial Intelligence (AI) driven by the breakthrough of deep neural networks is changing virtually every aspect of our lives and has disrupted many industries over the last years. Today algorithms accomplish tasks that until recently, only expert humans could perform. Driven by substantial investments in research and development, its underlying technology is turning into a critical strategic element of every publicly listed company.

Data science refers to the analytical processing of such data to extract trading signals, facilitate investment decisions and minimize risks. This discipline includes statistics, mathematics, computer science and machine learning. As a result, financial data science encompasses a vast array of knowledge and skills.

The seminar provides a broad overview of Financial Data Science, disentangles its interconnected topics, and illustrates its applications in the finance industry. Additionally, some examples from current academic research will be shown.

### Who should attend?

Financial analysts  
Asset managers  
Portfolio managers  
IT specialists  
Law and compliance experts  
Financial market operators  
Wealth managers  
Client advisors

### Language

English

### Date

April 23, 2020

### Time

13:00 – 17:00

### Place

**ONLINE Seminar**

### Seminar fees

SFAA members' attendance is free of charge.  
For non SFAA members the fee is CHF 480.- and includes documentation and refreshments.

### Registration

Online on [www.sfaa.ch/fr/SFAA\\_agenda.asp](http://www.sfaa.ch/fr/SFAA_agenda.asp)

### Information

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## Speakers



### **Prof. Dr. Damian Borth**

Damian Borth studied computer science at the TU Kaiserslautern and received his doctorate at the TU Kaiserslautern and at the German Research Center for Artificial Intelligence (DFKI). In addition, he did research at Columbia University in New York and at the University in Berkeley. There he worked together with Trevor Darrell, one of the two directors of the research laboratory for artificial intelligence.

He is the owner of the chair in Artificial Intelligence & Machine Learning at the University of St. Gallen (HSG) and the director of the Institute of Computer Science at the HSG.



### **Adrien Ecuyer**

Adrien Ecuyer holds a master from the Ecole polytechnique fédérale de Lausanne EPFL. Before joining Banque Cantonale Vaudoise as a cybersecurity auditor, he worked as senior information security consultant at Kudelski Security and as technical account manager and security engineer. He completed the Chartered Financial Data Scientist program in 2020.



### **Otto Waser**

Otto Waser is Chief Investment Officer and Partner of R & A Group Research & Asset Management, an independent provider of investment research and asset management services. Prior to co-founding R & A Group in 2001, Otto Waser was Chief Investment Officer and Head of Investment Research at Bank Julius Baer and before that Economist and Treasury Manager at J.P. Morgan. Otto Waser holds an MA in Economics from the University of Zurich. He completed the Chartered Financial Data Scientist program in 2020.