Manuel Capel

Résumé

Education

2000–2002	**Classes préparatoires**, *Preparatory classes to engineer schools*, Lyon, FR.
2002–2005	**ENSAI**, *French National School of Statistics an Information Analysis*, Rennes, FR.
2009–2010	**University Paris VI**, *Bachelor of Mathematics by distance learning*, Paris, FR.

Experience

apr. 2019–now — CEO - cofounder, *Parcoor*, Zurich, CH / Lyon, FR.

Leading embedded cybersecurity startup.
- Development management (team of 6 developers) for embedded cybersecurity solutions combining hardware programming and machine learning
- Business development
- Design and implementation of novel ML models for detection of malwares, network attacks and anomalies
- Building time series model for forecasting company revenues
- Developed CAST, a stochastic micro-simulation model for predicting Covid-19 spread, featured in various French medias (Usine Nouvelle, Cadre et Dirigeants, Le Progrès...)
- Building interactive dashboard for visualizing and analyzing revenues

dec. 2019–aug. 2021 — Backend Engineer, *Clevertech*, New York, USA (remote).

Maintaining and improving data pipeline for evaluating advertisement campaigns.
- Designing and building end-to-end cloud-base NLP data processing pipeline from multiple sources
- Building CI/CD pipeline for processing elements
- Consolidated data inputs and improved data processing time by 4x

aug. 2017–feb. 2019 — Data Scientist, *Ringier AG*, Zurich, CH.

Solving use cases and building production pipelines.
- Building the whole data pipeline for disambiguating users among different platforms, Developing model for gender prediction, for bot detection
- Developing recommender system for online articles
- Developing models for comment filtering (NLP)
- Visualisation and prediction of media content virality

jun. 2017–jul. 2017 — Data Engineer, *Everycs*, London, UK.

Extraction, transformation and loading of product data

apr. 2017–may. 2017 — Data Analyst, *AccessWatch*, Berlin, DE.

Developing machine learning methods for bot detection

feb. 2017–mar. 2016 — Data Preparation Expert, *Wealthport*, Zurich, CH.

Processing data transformation pipeline

oct 2013–oct 2016	**Scientific Assistant**, *Zurich University for Applied Sciences*, Winterthur, CH.
	Worked on several projects related to data analysis and process design.
	o Developping ageing models for water pipes, for maintenance optimization of vessel hulls
	o Project definition with costumers and team, Redaction of scientific reports
mar. 2013–aug. 2013	**Java Developer**, *Nextevolution*, Berlin, DE.
	Developed on templates and authentication system for a Document Management System
dec. 2011–feb. 2013	**Developer**, *Medizinischer Fakultätentag*, Berlin, DE.
	Full-stack development.
	o Conception, modelization and development of a web application to collect and evaluate data from German medicine faculties
oct. 2008–sep. 2011	**Main Officer**, *Federal Statistical Office of Germany*, Wiesbaden, DE.
	Assisting project management and development.
	o Guidance for the migration of an Content Management System
	o Implementation of parts of the project
apr. 2005–sep. 2008	**Developer-Analyst**, *INSEE*, Aix-en-Provence, FR.
	Assisting project management and development.
	o Assisting project management and responsible for development, user training and assistance around the Content Management System
	o Referent for web accessibility

Languages

o English: Good proficiency	o German: Fluent
o French: Native	o Spanish: Intermediate proficiency

Machine Learning / Deep Learning skills

Data Processing:	Extraction, processing, formatting, persistence of data in various formats
Modelling:	Classification, Regression, Ensembling, measuring performance in Python and C
Deep Learning:	Keras, Tensorflow, PyTorch on different architectures, e.g. CNN or Recurrent
Visualisation:	matplotlib, seaborn, pyplot, plotly, ggplot (R)

Computer skills

Programming:	Python (advanced), C++, R, Java (intermediate), C (intermediate)
(no)SQL:	MySQL, PostgreSQL, MongoDB. Experienced in querying very large tables
Cloud Computing:	AWS, Google Cloud, Containerization (Docker, Kubernetes), data engineering, E2E ML-Ops

Miscellaneous

- Novel algorithm for fast computing of Fibonacci numbers.
- Webapp retrieving media trends from Google Trends and Twitter.
- Paper "Improving Supervised Classification with Density Ratio Encoding. Application to Human vs. Robot Classification", 2017.
- Python library *paracoord* for visualizing multi-dimensional data.

Interests

Table Tennis, Chess, Traveling