



Sona Hunanyan

Education

- 2011–2014 **MSc Applied Mathematics**, *EPFL Lausanne*, Switzerland.
Thesis: Maximum air temperature analysis for nuclear safety. Latent Variable hierarchical models were used to analyse extreme weather data from different locations. Markov Chain Monte Carlo methods were applied to develop the space-time dependent models. Supervisor: Professor A. C. Davison
- 2007–2011 **BSc Informatics and Applied Mathematics**, *Yerevan State University*, Armenia.
Thesis: Development of a trade-system for electronic books. Description: The code is based on PHP and SQL.

Experience

- 2017 **Quantitative Analyst**, KERNKRAFTWERK GÖSGEN, DÄNIKEN, Switzerland.
Application of the time-dependent Block Maxima model to the extreme weather data. Epistemic uncertainty analysis. Development of hazard curves for the extreme weather data. Analysis of the spatial variability using Markov Chain Monte Carlo methods. A training course in R for the department.
- 2014–2015 **Quantitative Analyst**, KERNKRAFTWERK GÖSGEN, DÄNIKEN, Switzerland.
Development of a correlation model (bivariate distribution) for describing joint extreme values of high air temperature and high river temperature for the NPP Gösgen site. Statistical evaluation of the impact angles for the airplane crash impact.
- 2013–2014 **Internship**, KERNKRAFTWERK GÖSGEN, DÄNIKEN, Switzerland.
Development of alternative models to analyse extreme weather conditions, including the copula analysis of dependence. Quality Assurance of the Raw Meteorological data provided by MeteoSwiss.

Computer skills

- Advanced **R, MatLab, \LaTeX .**
- Intermediate **SQL, PHP, JavaScript, CSS, HTML.**
- Basic **Python, C++.**

Languages

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| Armenian | Mother tongue | |
| English | Advanced | <i>Fluent</i> |
| Russian | Advanced | <i>Fluent</i> |
| German | Intermediate | <i>B1</i> |
| French | Basic | <i>Basic words and phrases (A2)</i> |