Steven Francois

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PROFILE

Highly motivated student with a strong background in applied mathematics and computer science. Interested in Machine Learning applied to quantitative finance and actuarial sciences, demonstrated fluency in computer programming & problems solving.I am seeking an **internship in the field of quantitative finance**

EDUCATION

M. Sc. Probability & Finance (Ex. Dea El-Karoui) Sorbonne University & Ecole Polytechnique | 2022 – 2023

M. Sc. Actuarial Sciences ISUP | 2022 – 2023

B. Sc. & First Year M.Sc. In Applied Mathematics and Computer Science Sorbonne University | 2018 – 2022

- Msc Obtained with high honours (3.7/4 GPA)

Preparatory Class Ecole Pierre-Gilles de GENNES | Paris 13ème | 2017 – 2018

- Option MPSI **(**5/40 Rank)

SPECIFIC SKILLS

IT: Python, C++, C

- Statistictical Modeling: Regression | Bayesian & Inferential Estimation | Time series analysis | Test hypothesis
- Machine Learning & Deep Learning: | Sklearn | Tensorflow & Keras
- Data Sciences: Scipy | Numpy | Pandas | Sklearn | Seaborn | Eigen (C++)

Quantitative:

- Stochastic Calculus: Exotics Options & Derivatives | HJB equation | Optimal control problems
- Numerical probabilities: Monte-Carlo Methods | Simulation | Malliavin Calculus | discretization schemes For PDE's
- Risk Management: Longevity risk | VAR & CVAR computation | Extreme value theory | ALM

ACADEMICS PROJECTS

- Solving multiples High-Dimensional determinist PDE'S equations using Galerkin's approach: - 2021
  - Grid scheme programming for PDES (FreeFem Inspired) with Numpy libraries
  - Implementation of shape functions and resolution using linear algebra methods with Scipy
- Detection of rare events in sports betting and implementation of a gaming strategy using discrete-time martingales - 2019
  - Web Parsing using beautiful soup and HTML, detection using Pandas and strategy implementation on Excel

PROFESSIONAL EXPERIENCE

Science Tutoring and Teaching **Anacours** & **Alvéus** | 2018 – Present

- Group supervision of 5 students – Undergraduate to Bachelor level at Alvéus, and one-on-one lessons at Anacours
- Mathematics, physics, programming courses
- Assessment and revision of exercises, lesson plans and lesson content to facilitate student-centered learning

Assistant business manager in a Design Office in Climatic Engineering **ENGIE** | June – August 2019

- Gathered requirements for ongoing projects: calculation and analysis of pressure drop anomalies with Excel and AutoCAD
- Supported the team with innovative and problem-solving solutions using Python Data structure
- Assistant site manager, Metro 14: Verification of state-of-the-art implementation on site

OTHERS

- English (Business Level)
- Microsoft Pack Office
- Cycling
- Loyal and sense of responsibility | Dynamic and proactive | Initiative and autonomy | Creative
- Strong interpersonal skills | Listening skills and approachable | Adaptability and pedagogy | Team worker