

## 2<sup>nd</sup> part resume – Additional information

### Personal projects

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#### Machine learning for Financial data analysis

**Autumn 2013 - Now**

Developed a Python application with 2 modules: a financial time series forecasting with support vector machines and a technical analysis of stocks with auto detection of patterns and signals (Support Vector Classification and Regression, Neural Network, Cross Validation, several python libs: numpy, pandas, matplotlib, sklearn...).

#### Reflexion game and artificial intelligence

**January 2011**

Developed an online game in C# - Silverlight. Used of PHP - MySQL to save scores and statistics.

#### Content management suitable for virtual reality

**Autumn 2010**

Creation of a content management system adapted for virtual reality in Virtools and 3ds Max (developed at the university). Used of a flock of birds and a numeric glove.

#### 3D chemistry software

**Spring 2010**

Developed a piece of software which helps students to discover chemistry through a series of exercises of either the drawing of 3D molecules or the answering of questions. The application monitors the student's level and adapts the difficulty level accordingly (C#, WPF, WPF 3D).

#### Pathfinding algorithm

**Spring 2010**

Developed an implementation of a Multi-agent pathfinding system in a dynamic environment (C++) and a 3D viewer/editor to visualize the different steps of the algorithm and interact with the agents (Java, Swing). Communication between the two applications by using sockets.

#### Flash game with physics simulator engine

**Spring 2010**

Developed a game linked to a physics simulator engine (Adobe Flash, Action Script 3, Photoshop CS5, Box 2D).

#### Generative planning

**Spring 2009**

Developed an application for an association at the UTC (Java, Swing). The goal of the application is to assist the organization of events by automatically generating the planning of each member of the association (SVG).

### Interests

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- **Student jobs:** Private lessons in Mathematics, Physics, and Computer science.
- **Literature:** Scientific and Science fiction books.
- **Associations:** Treasurer/Secretary of several university associations (UTC).
- **Sport:** Competition of Running (Prom' Classic etc.), Powerlifting and Cycling.
- **Others:** Interested in video game, poker and politics.