Radu Motrescu

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EDUCATION

- **Faculty of Mathematics and Computer Science, Transilvania University**   Brasov, Romania
  Bachelor of Science in Computer Science   *Oct. 2015 – June. 2018*

LEARNING EXPERIENCE

- **Siemens Corporate Technology**   Brasov, Romania
  Intern   *Apr 2017 - June 2017*
  - **Principal Component Analsysis Visualization**: Implemented several Principal Component Analysis algorithms to see the differences between them, using Python and C# for visualization purposes.

- **Siemens Industry Software**   Brasov, Romania
  Student   *February 2017 - October 2017*
  - **Spring School / Summer School**: Took part in the Spring and Summer School programs that Siemens Industry Software provided, which aimed to teach modern C++, coming from people with large ammounts of experience in the industry. These courses culminated in a one month team based project, the result being a small game framework, written from scratch.

PROFESSIONAL EXPERIENCE

- **Siemens Industry Software**   Brasov, Romania
  Software Engineer   *June 2018 - Present*
  - **Simcenter3D**: Simcenter3D is one of the largest CAE applications currently on the market. Worked on the Noise and Vibrations side of the application, with most of time split between designing UI elements (using a proprietary framework) and writing code that supports the communication between the UI elements and solvers, through the use of both open source and proprietary files and file formats. All of this was done using modern C++ standards.
  - **Unit testing and automated testing**: Kept the quality of the application in check during development with unit tests and automated tests. Used modern unit testing practices like Test Driven Development when applicable.
  - **Teamwork**: Aided the team's engineers and upper management in understanding development best practices and current limitations of the application from a developer's perspective.
  - **Project management methodologies**: Worked for one and a half year in a Waterfall environment, going through all the project phases. Later the team changed the approach to an Agile-Scrum style, which meant getting formal training in Agile practices, and contributing to designing different processes that would help the team. In this period I also took on the role of Scrum Master for certain events, when given the chance.
  - **Tools**: Worked on different internal tools that were used for specific tasks that were not part of the shipped product. These usually were Python scripts and small applications that did internal file conversions.
  - **Linux**: While most of the work of the application was done on the Windows OS, sometimes Linux specific tasks appeared, usually C++ compatibility fixes or fixing automated and unit tests.
  - **Application performance improvements**: Worked on multiple tasks that required application benchmarking, usually resulting in doing code changes that improved the performance of certain operations from 10% to 90%, while also keeping the code and functionality future proof.

PROGRAMMING SKILLS

- **Languages**: C++, Python   **Version Control Systems**: Git/GitLab, Mercurial, Perforce