

# Martin Čáp | Curriculum Vitae

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Computer graphics programming engineer who recently finished his master's studies. Passionate about game development, parallel algorithms on GPUs, 3D modeling, and traditional art. Strong technical and interpersonal skills. Commended by professors for his programming abilities and attention to detail.

## Education

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### Academic Qualifications.....

**Czech Technical University in Prague**, Faculty of Electrical Engineering, Open Informatics

- **Master's Degree**  
*Computer Graphics, Graduated with Honors, 1.07 Average Weighted Score* 2017–2019
- **Bachelor's Degree**  
*Software Systems, Graduated with Honors, 1.45 Average Weighted Score* 2014–2017

### Notable Projects.....

- **Master's Thesis** '*Simulation of Orographic Clouds*'  
The thesis presents a real-time application for simulating orographic clouds, i.e. clouds that are created in mountainous environments. The application was created with C++, OpenGL, and parallelized on the GPU with CUDA technology. The final thesis, which was written in English, received the Dean's award.
- **Bachelor's Thesis** '*Comparison of Unity and Unreal Engine*'  
Created a short twin-stick shooter in a fantasy setting with role-playing elements in both Unity3D and Unreal Engine 4. The final thesis received the Dean's award.
- **VR Game** '*The Portraitist*'  
A horror-themed VR escape game made in Unity3D for Windows Mixed Reality headsets. Game was created in a team of two and a majority of its assets were handcrafted.
- **Multimedia and Animation Project** '*Dynamic Speech Animation in Unreal Engine*'  
For course on multimedia and animation I have developed an application where the user could dynamically control the speech of a female character. The character was modeled, rigged and textured in Blender by hand.

## Technical and Personal Skills

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- **Programming Languages:** Most proficient with: C++, C#, PHP, Matlab  
Also experience with: C, Java, JavaScript, HTML, CSS (+Sass/SCSS), Java EE, Python, VHDL
- **Industry Software Skills:** OpenGL, CUDA, Unreal Engine 4, Unity3D, Blender, Maya, L<sup>A</sup>T<sub>E</sub>X, Krita, Gimp, Photoshop, Inkscape, Nuklear, Substance Painter, Git, SVN (TortoiseSVN), PostgreSQL, MySQL (phpMyAdmin), Meshroom, Bash, Gurobi, Visual Studio, PhpStorm, Enterprise Architect, Windows, Mac OS X
- **General Business Skills:** Great presentation and communication skills. Can write well-organized reports. Experience with business analysis (UML diagrams) and UX design.
- **Languages:** Czech (native), English (fluent), Spanish (beginner), Japanese (beginner)

## Interests and Extracurricular Activities

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- Avid artist, took classes in figure drawing at the Academy of Arts, Architecture and Design in Prague. Enjoy painting/drawing by hand and also digitally using a tablet.
- Experienced violin player who attended and finished studies at music school (16 years).