

## Filipe de Carvalho Nascimento

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**email:** filipedecn@gmail.com - **portfolio:** filipecn.github.io  
+55(16)98165-1696

<b>Education</b>	<b>PhD's degree in Computer Science</b> Institute of Mathematics and Computer Science (ICMC) University of São Paulo (USP), São Carlos, São Paulo, Brazil	2017 - Present
	<b>Master's degree in Computer Science</b> Institute of Mathematics and Computer Science (ICMC) University of São Paulo (USP), São Carlos, São Paulo, Brazil	2013 - 2016
	<b>Bachelor of Computer Science</b> Institute of Mathematics and Computer Science (ICMC) University of São Paulo (USP), São Carlos, São Paulo, Brazil	2008 - 2012
<b>Languages</b>	Portuguese, English, French (Débutant), Japanese (Beginner)	
<b>Programming Languages</b>	C/C++(preferred)/Python <i>and some experience with:</i> Rust/R	
<b>Skills &amp; Interests</b>	OpenGL/Vulkan/CUDA <i>and more recently:</i> RTX/Optix/OpenVDB	
<b>Professional Experience</b>	<b>Software Engineering Intern at Google Inc. (YouTube)</b> Jan 2016 - Mar 2016 Worked on 360° video support for YouTube app on Sony's PlayStation 4 VR.	
<b>Research Experience</b>	(publications on next page) <b>Digital Animation of Powder Snow Avalanches</b> Graduate Research supported by FAPESP Supervisor: Afonso Paiva	2017 - Present
	<b>Multimaterial Fluid Simulation for Computer Graphics</b> Sep 2014 - Feb 2015 Visiting Scholar at University of Waterloo (UW), Waterloo, Ontario, Canada Supervisor: Christopher Batty	
	<b>Reliable polygonal approximation of implicit curves</b> Undergraduate Research supported by FAPESP Supervisor: Afonso Paiva	2011-2012
<b>Extracurricular Activities</b>	<b>Programming Contests</b> Participating as coach in the ACM-ICPC 2014 World Finals • ACM-ICPC Latin America Regional Contest (1st Place)	2013 - 2014
	As competitor participated in: • ACM-ICPC Brazilian Regional Contest • ACM-ICPC Latin America Regional Contest	2009-2012 2009
	<b>Advanced Algorithms Laboratory Course</b> Teaching Assistant	March 2013 - July 2013

**Scientific  
Publications**

- RBF Liquids: An Adaptive PIC Solver Using RBF-FD** 2020  
Paper accepted at ACM Siggraph Asia 2020 and ACM Transactions on Graphics
- Approximating implicit curves on plane and surface triangulations with affine arithmetic (AA)** 2013 - 2014  
Paper published at Computers & Graphics Journal (CAG), Volume 40, Pages 36–48.
- Approximating implicit curves on triangulations with AA** 2012  
Paper published at XXV SIBGRAPI Conference on Graphics, Patterns and Images, 2012. Proceedings of XXV SIBGRAPI. IEEE Press: IEEE Press, 2012. p. 94-101.