Gueunet Charles

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I am a 27 years old R&D engineer working in the Scientific Visualization team at Kitware Lyon. I defended my Ph.D in Level-set based Topological Data Analysis in 2019.

Position

Position	**R&D Engineer**, at **Kitware**	Ferburary 2019 — Present
Languages	**C++, CMake, VTK, Paraview, TTK, OpenMP, Python**	
Gains	Improve code quality, Quickly apprehend a large code base, Reduce technical debt	

Publications

Main-Author	**Thesis**: High Performance Level-set Based Topological Data Analysis
	Eurovis 2019: Task-based Augmented Reeb Graphs with Dynamic ST-Trees
	TPDS 2018: Task-based Augmented Contour Trees with Fibonacci Heaps
	LDAV 2017: Task-based Augmented Merge Trees with Fibonacci Heaps
	LDAV 2016: Contour Forests: Fast Multi-threaded Augmented Contour Trees
	IEEE Vis 2018: Topological Data Analysis Made Easy with the Topology Toolkit
	Conference on Physical Modeling for Virtual Manufacturing Systems and Processes 2017: Viscous fingering: A topological visual analytic approach
	IEEE Vis 2017: The Topology Toolkit [Best Paper Honorable Mention Award]
	IEEE Vis 2016: Visualizing ensemble of Viscous Fingers [Honorable Mention Award]

Education

Period	**2016 — 2019**	
Degree	**Ph.D**	
Place	**Sorbonne University (LIP6) and Kitware**	Paris, France
Subject	High Performance Level-set based Topological Data Analysis	
Gains	HPC, TDA, Article redaction and review process	

Period	**2010 — 2015**	
Degree	**Engineering Diploma in Computer Science (Master degree, 5yrs)**	
Place	**EISTI**	Pau, France
	International School of the Sciences of Data Processing, formation in Cloud Computing, Software development, Algorithmic And management	

Skills

Code:	C, C++, VTK, TTK, OpenMP, MPI, CMake, Python
Tools:	GNU/Linux, Git, Paraview, Vim, LaTeX
Languages:	French (native), English (865 at TOEIC)

Interests

IT:	Open-source, Videos games
Music:	Piano (12years)
Hobbies:	Board and Video games