Ruben Wiersma

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I am a second-year PhD student in computer graphics at the TU Delft. My interests include geometry processing, animation, simulation, and machine learning. I have gathered experience as a <u>programmer</u>, graphic designer, and filmmaker during my undergraduate years. You can find some examples of <u>on my portfolio</u>.

SKILLS AND QUALITIES

Strong math understanding • Ability to understand and analyze complex systems • Eye for clean, maintainable, and understandable code - example project • Creative thinking • Presentation and communication - example presentation • Determination • C++ • Python • Linux • macOS • Blender • Adobe CC • Piano

EDUCATION

[2019 - present] PhD Computer Graphics

TU Delft Supervised by Elmar Eisemann, Klaus Hildebrandt and Joris Dik

- Studying applications of computer graphics and machine learning for painting analysis.
- Studying fundamentals and applications of geometric deep learning.
- Additional responsibilities: lecturing, lab assistance, creating assignments.
- Toolkit: C++, OpenGL, Python, PyTorch.

[2017 - 2019] MSc Computer Science Cum Laude (GPA 4.0)

TU Delft

- Focus on computer graphics and machine learning.
- Thesis (grade 9/10 "Harmonic Surface Networks" [PDF download].
- Toolkit: C++, Python, PyTorch.

[2014 - 2017] BSc Computer Science Cum Laude (GPA 4.0)

TU Delft

- Focus on multimedia and data science.
- Thesis on "Automating Valuations for Real-Estate" [PDF download].

[2013 - 2014] Propedeuse Industrial Design Engineering Cum Laude

TU Delft

EXPERIENCE

[2019] Teaching Assistant

TU Delft

- Developed assignments for new datamining and Machine Learning courses and lab assistance.
- Toolkit: Python, Jupyter, NumPy

[2017] Development Internship

GeoPhy

- End-to-end machine learning solution for estimating real-estate value.
- Toolkit: Scala, Apache Kafka.

[2012 - present] Video producer, graphic designer

Wiersma Brothers, Torchbearers International, freelance

- Wiersma Brothers: founder, producing video's and short films.
- <u>Torchbearers International</u>: creative director and web development. View <u>samples of my work</u>.
- Freelance work in graphic design and web development.

[2008-2010] Programmer

GoPublic

- Back-end developer for websites and and business administration webapps.
- Toolkit: PHP, JavaScript, HTML.

VOLUNTEERING

[2020 - present] SIGGRAPH Committee member

Research and career development committee

- Organizing conference coffee event (social event at SIGGRAPH '21.
- Creating and maintaining committee website.

[2020 - present] Reviewer

ACM Transactions on Graphics, Pacific Graphics

[2013 - 2019] Committee member, committee chair

C.S.R. Delft, The Veritas Forum Delft

- Organised academic debat and events for society anniversary.
- Produced several narrative short films.
- Produced, designed and organised the presentation event for an <u>anniversary book</u>.
- Organized several academic debates and hosted lectures (20-200 audience members.

[2014 - 2017] Restaurant staff manager, PR

Happietaria, Hartige Samaritaan

Happietaria is a pop-up restaurant for charity, lasting one month. Hartige Samaritaan is a variant that is organised with Refugees.

- Managed the restaurant staff for the Happietaria (November 2014 .
- Together with all the volunteers for Happietaria, raised €78.913.
- Communications manager for Hartige Samaritaan (February 2017 .

PUBLICATIONS

[SIGGRAPH '20] CNNs on Surfaces using Rotation-Equivariant Features

July 2020

[Heritage Science] Revealing unique inscriptions of a Nazi collaborator in Doodencel 601 of the Oranjehotel

July 2020

[SIGCSE '20] Are We Consistent? The Effects of Digitized Exams Grading

February 2020

[Master's thesis] <u>Harmonic Surface Networks</u>

October 2019

GRANTS

Google Cloud Research credits

October 2019, October 2020

TALKS

17th May 2021, Utrecht University

Lecture on applications of computer graphics to painting analysis for bachelor students in art history.

27th September 2020, PI Lab TU Delft

Seminar talk: applications of computer graphics to painting analysis.

14th May 2020, Stanford Guibas Lab

Invited talk: CNNs on Surfaces using Rotation-Equivariant Features

July 2020, SIGGRAPH

Technical papers presentation: <u>CNNs on Surfaces using Rotation-Equivariant Features</u>