

ANNA GÜLCHER

PLANETARY SCIENTIST | DATA | MANAGER | COMMUNICATOR



INFO

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California Inst. of Technology
1200 E. California Blvd.,
Pasadena, CA 91125, US

D.O.B: 25.07.1994, Dutch
US J-1 visa, Swiss C-permit

SOFT SKILLS

- Goal-oriented and focused
- Excellent communication
- Management and organisation
- Storytelling; creative writing
- Team-worker and social

INTERESTS | VALUES -

- The building blocks of a habitable planet
- Software and programming
- Data sciences and visualisation
- Planetary space missions (ESA, NASA programmes)
- Science communication and outreach
- Diversity and equality
- Organisation and planning
- Leadership and management

LANGUAGES

Dutch: native
English: fluent
German: excellent
French: basic

I am a successful planetary scientist with a strong STEM skillset and aptitude for project management, data science, and coordination. Trained in understanding complex physical concepts, I envision to work on the execution, communication, and management of innovative projects on the verge of technological and scientific progress

PROFESSIONAL EXPERIENCE

Space Sciences Lecturer

06.2023 - 08.2023

MetaVisionaries, Metaversity Space Academy (part-time)

- Providing future-focused education to Metaversity Academy students worldwide

Planetary scientist, postdoctoral research fellow

02.2023 - present

NASA Jet Propulsion Laboratory; California Institute of Technology, Pasadena, US

- Principal Investigator of SNF-awarded research project on Venus geophysics, geology, and space missions
- Leadership in professional committees (NASA) and mentoring of fellow researchers
- Involvement in NASA and ESA scientific space missions (VERITAS and EnVision)

Earth and planetary scientist, PhD researcher

11.2018 - 12.2022

Dept. of Earth Sciences, ETH Zürich, Zürich, Switzerland

- High-impact and frequent scientific output, papers, book chapters, and media coverage
- Awarded communication and strong track record in professional outreach
- Course teaching, mentoring, and (co-)supervisor for BSc, MSc, and PhD research projects (10+)

Student consultant Board of Education

08.2015 - 08.2016

Dept. of Geosciences, Utrecht University, Utrecht, the Netherlands

Teaching assistant, lecturer

09.2014 - 07.2016

Dept. of Geosciences; Dept. of Physics, Utrecht University, Utrecht, the Netherlands

Outdoor and windsurfing instructor; camp coordinator

07.2011 - 10.2016

Zeilschool Oer't Hout, the Netherlands; Elba Travels, Italy

KEY ACHIEVEMENTS

- Awardee and principal investigator of \$140K research project, Swiss National Science Foundation, 06.2022
- Women-in-STEM ambassador, mentor, and striving to enhance diversity and integrity in STEM
- Awarded communication, prestigious invites for keynote talks and panels (NASA, PSA Decadal, EGU, AGU)
- Selected as collaborator to ESA/NASA space missions and on NASA-led professional committee
- Major science contributions to understanding the evolution of Venus and Earth by combining software-based results with space mission and Earth observation data
- Outstanding Presentation Award, EGU General Assembly, Vienna, 05.2019
- ETH MSc thesis Medal: best MSc thesis in Dept. of Earth Sciences, 10.2018

ACADEMIC QUALIFICATIONS

PhD in Geophysics | Planetary Sciences

11.2018 - 10.2022

Dept. of Earth Sciences, ETH Zürich, Zürich, Switzerland

- Dissertation on computational modelling of Earth's interior physics and evolution

MSc. in Earth Sciences | Geophysics, with distinction, GPA 4.0/4.0

09.2016 - 09.2018

Dept. of Earth Sciences, ETH Zürich, Zürich, Switzerland

- Dissertation on computational modelling of Venus' tectonics and volcanism, and integration of numerical results with space mission data

BSc. in Earth Sciences, Cum Laude, GPA 4.0/4.0

08.2013 - 07.2016

Utrecht University, Utrecht, the Netherlands

TECHNICAL | IT

- Integration of mathematics, physics, chemistry, biology, computer sciences
- Coding and programming (Python, MATLAB, Fortran Bash, C)
- Visualisation and design (Adobe Illustrator, Affinity)
- Social media outreach (Blogs, twitter, tweetdeck WordPress, LinkedIn)
- Gantt chart management (Smartsheet, Microsoft Project)
- Microsoft Office 365
- Git version control; LaTeX

CERTIFICATES

New Space Economy, EPFL edX, Switzerland, [asp. 9.2023](#)

Alpinism course C1, NKBV Climbing and Mountaineering Federation, Austria, [08.2022](#)

Int. Collegial Coaching, SolutionSurfers, [08.2021](#)

German C1, Sprachenzentrum der UZH, [06.2021](#)

Learning to Teach, ETH Zürich, [03.2021](#)

First Aid course, SanArena Rettungsschule, Zurich, [06.2020](#)

TOEFL English C1 [07.2016](#)

CWO IV Outdoor and wind-surfing instructor, [15.2011](#)

HOBBIES

Hiking and mountaineering
Arts and creativity
Camping and outdoors

FURTHER INFO

An overview of all my work output can be found on my [personal website](#).

PROFESSIONAL SERVICE (SELECTED)

VERITAS space mission, scientific collaborator [03.2023 - present](#)
NASA Jet Propulsion Laboratory, mission led by S. Smrekar (JPL)

EnVision space mission, Radio Experiment Science (RSE) team member [04.2022 - present](#)
European Space Agency (ESA), team led by C. Dumoulin (Univ. Nantes, FR)

NASA Steering Committee member, Venus Exploration Analysis Group (VExAG) [03.2023 - present](#)

Expert reviewer and consultant for scientific papers and grant proposals (\$500k+) [03.2020 - present](#)

Conference organisation, session convener/chair [05.2020 - present](#)

- Responsible for international workshop and conference organisation; organisation team lead
- Leading scientific panels and foster discussions as session convener/chair (10+)

Early Career Scientist Representative, European Geoscience Union [05.2020 - 05.2022](#)

- Vital link between the scientific community, the Division leaders, and the Union board

Science communicator and outreach manager, EGU [05.2019 - 10.2022](#)

- Blog editor and author for the Geodynamics [blog webpage](#)
- Social media manager for the Geodynamics outreach channels (twitter, facebook)

Mentor for female early career scientists, EGU [05.2021; 05.2022](#)

President of the Geologic Women's Society Utrecht [08.2015 - 08.2016](#)

MOST PRESTIGIOUS INVITED PRESENTATIONS AND INTERVIEWS

- [Fall 2023](#), On-camera commentary for [The History Channel's 'The UnXplained: Mysteries of the Universe'](#) documentary series (**expert interviewee**)
- [05.2022](#), European Geosciences Union (EGU) General Assembly 2022, session 'Towards the Decade of Venus' (**Invited speaker**)
- [04.2022](#), NASA Venus Exploration Analysis Group "Second Planet Second Tuesdays" Colloquium (**Colloquium speaker**)
- [08.2021](#), German/Swiss Geodynamics Workshop, Bad Belzig, DE (**Keynote speaker**)
- [03.2021](#), NAS Planetary Science and Astrobiology Decadal Survey 2023-2032 'Venus Geodynamics' open session (**Keynote speaker and panelist**)
- [02.2021](#), Oxford University Geophysics seminar series
- [08.2020](#), NASA GISS 'Venus Science Today' conference (**Invited speaker; panelist**)

FURTHER EDUCATION AND TRAINING (SELECTED)

Leadership and development [09.2019 - present](#)

- *New Space Economy*, [EPFL edX](#), *Space4Impact* and *Space Innovation* (exp. 40 hrs)
- Introduction to Collegial Coaching, [SolutionSurfers](#), [Int. Coaching Federation](#) (60 hrs)
- Time management, [Sandra Bajus](#), ETH Zürich (4 hrs)
- [Learning to Teach](#), Educational Development and Technology, ETH Zürich (30 hrs)
- Scientific writing, Dr. Thomas Armstrong, University of st. Gallen, Switzerland (30 hrs)
- Project Management, Zentrum für Weiterbildung Universität Zürich (30 hrs)

