Curriculum Vitæ

Christoph Gote

PROFILE

Data scientist and software engineer keen to apply network analysis and graph learning to socio-technical systems.

CONTACT

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PROJECTS

git2net: git2net.readthedocs.io
Open Source Python package for the extraction of fine-grained and time-stamped co-editing networks from git repositories.

gambit: github.com/gotec/gambit
Name disambiguation tool for version control systems.

SKILLS

Programming
Python
Pandas, NumPy, SciKit-Learn, PyTorch, GraphTool, Statsmodels, Matplotlib, BeautifulSoup
Matlab/Simulink, R, C++, C#

Databases
SQL, GraphQL

Software
LaTeX, TikZ
Git, SVN
Bash, Docker, Jupyter

Languages
German *(native)*
English *(fluent)*
Dutch *(basic)*
Italian *(basic)*
Latin

EXPERIENCE

since 2022 — **Machine Learning Researcher** *(50%)*
Data Analytics Group, University of Zurich, CH
- ▶ Organised and conducted research on graph learning and network analysis for multi-relational, time-series, and group interaction data
- ▶ Provided mentorship and research guidance to 4 doctoral students

since 2019 — **Software Developer and Maintainer** (git2net and gambit)
- ▶ Developed and maintained 2 Free Open Source (FOSS) Python packages across 40+ releases reaching >100k installations
- ▶ Presented packages in 15+ talks and tutorials across 10 countries

since 2018 — **System Administrator**
Chair of Systems Design, ETH Zurich, CH
- ▶ Designed and supported IT infrastructure for team of ∼15
- ▶ Built Docker-based scientific computing server improving performance for machine learning and big-data analysis by >30× over prior hardware

since 2017 — **Empirical Software Engineering Researcher** *(50% since 2022)*
Chair of Systems Design, ETH Zurich, CH
- ▶ Developed risk indicators for productivity loss based on >10 TB of development data mined from 20,000+ software projects
- ▶ Established close collaboration with German IT Security company *genua GmbH* across 6 visits and 2 joint publications
- ▶ Taught exercise classes in 2 subjects to groups of up to 200 students and co-supervised 7 Master students

2015 — **Human-Machine Interaction Researcher**
Delft Haptics Lab, TU Delft, NL
- ▶ Created Matlab/Simulink model reproducing human steering behaviour with 80% accuracy
- ▶ Ensured real-time capability by transferring parts of the code to C++

EDUCATION

since 2023 — **Dr. rer. nat.** *(exp. completion in 2024)* — *JMU Würzburg, DE*
Chair of Machine Learning for Network Science

2017–2021 — **Dr. Sc. ETH Zurich** — *ETH Zurich*, CH
Chair of Systems Design
2019 — Summer School, Organisational Behaviour — *LSE, UK*

2016–2017 — **MSc Investment & Wealth Management** — *ICBS, UK*

2010–2016 — **BSc + MSc Electrical Eng. and Information Technology** — *KIT, DE*
2014–2015 — Year abroad, MSc Systems and Control — *TU Delft, NL*

SELECTED TALKS AND PUBLICATIONS   *(total of 22 talks and 13 publications)*

2023 — **Tutorial:** Gote, C., "Mining and Analysing Collaboration in git Repositories with git2net". *IEEE/ACM Int. Conf. on Mining Software Repositories (MSR) 2023, Melbourne, Australia*

2022 — **Publication:** Gote, C., P. Mavrodiev, F. Schweitzer, and I. Scholtes, "Big Data = Big Insights? Operationalising Brooks' Law in a Massive GitHub Data Set". *IEEE/ACM Int. Conf. on Software Engineering (ICSE) 2022, Pittsburgh, PA, USA*

AWARDS

2022 — **Best Paper Award** for "Predicting Influential Higher-Order Patterns in Temporal Network Data" at *IEEE/ACM Int. Conf. on Advances in Social Networks Analysis and Mining (ASONAM) 2022, Istanbul, Türkiye*

2019 — **Best of Data Science made in D/A/CH** track for git2net from German Informatics Society (GI) at *INFORMATIK 2019, Kassel, Germany*

2019 — **FOSS Impact Paper Special Mention Award** for git2net at *IEEE/ACM Int. Conf. on Mining Software Repositories (MSR) 2019, Montreal, QC, Canada*

2017 — **Dean's List** (top 10% of class) and **Best Applied Financial Report** in MSc Investment & Wealth Management at *Imperial College Business School*