# Christoph Gote

\*14.08.1992 Curriculum Vitæ ETH Zurich Chair of Systems Design WEV G 205 Weinbergstrasse 56/58 8092 Zurich

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#### **PROFILE**

- ▶ Passion for analysing and controlling complex systems: experience modelling human driver behaviour, economic networks as well as social and socio-technical systems; built cognitive models using network theory, optimisation, neural networks and game theory
- ► Communication and presentation skills: continuously taught groups of students throughout my studies in engineering; led group researching and writing conference paper, presented results on an international level
- ▶ European language skills: fluent in German and English, attended several American Schools, studied in London; working proficiency in Dutch, lived in Belgium for four and the Netherlands for one year

EDI	FION

2010-2013

since 2017 ETH Zurich - Swiss Federal Institute of Technology

**Zurich, Switzerland**Prof. Dr. Dr. Frank Schweitzer

2016-2017 Imperial College Business School, London

London, United Kingdom

MSc. Investment & Wealth Management

PhD Candidate, Chair of Systems Design, D-MTEC

Credit Card Fraud Detection Using Computational Intelligence: Classification in Highly Unbalanced

**Datasets** 

2013-2016 Karlsruhe Institute of Technology

Master Thesis:

Karlsruhe, Germany

MSc. Electrical Engineering and Information Technology

Specialisation: Systems and Control

Master Thesis: Development and Comparison of Adaptation Functions for Driver Assistant Systems in Takeover Sce-

narios using Differential Games

2014-2015 TU Delft - Delft University of Technology

niversity of Technology Delft, the Netherlands

Year abroad, Master of Systems and Control

Karlsruhe Institute of Technology

Karlsruhe, Germany

BSc. Electrical Engineering and Information Technology

Bachelor Thesis: Development of a Concept for Determining Driver-Specific Reference-Trajectories Based on Road Data

# RESEARCH EXPERIENCE

#### 2015 TU Delft - Delft University of Technology Research Intern (4-month internship)

Delft, the Netherlands

Prof. Dr. David Abbink

- ► Evaluated data from driving study to build individual driver assistant system models for specific drivers; designed Matlab/Simulink model capturing human corner cutting behaviour
- ▶ Performed 400+ simulations optimising model structure and parameterisation; ensured real-time capability by transferring parts of the code to C++; model capable of reproducing behaviour of 80% of recorded drivers
- ▶ Established a collaboration between research groups at TU Delft and Karlsruhe Institute of Technology; joint goal of building a driver assistant system combining distinct benefits of human and machine

#### **TEACHING EXPERIENCE**

- ▶ Designed and delivered courses, lectured total of 12 courses with 20+ students each
- ▶ Recommended changes in course material and course structure; created new and modified existing course materials
- ▶ Mentored 6 students during preparation for last try to pass exam; successfully achieved a pass rate of 100%

2013-2016Optimisation of Dynamic SystemsProf. Dr. Sören Hohmann2014Advanced Control Techniques LaboratoryProf. Dr. Sören Hohmann2013-2014System Dynamics and Control EngineeringProf. Dr. Sören Hohmann2011-2013Digital TechnologyProf. Dr. Jürgen Becker

### **PUBLICATIONS**

2017 Cooperative Dynamic Vehicle Control Allocation using Time-Variant Differential Games

Julian Ludwig, Christoph Gote and Sören Hohmann

IEEE International Conference on Systems, Man and Cybernetics 2017, Banff, Canada

2014 Driver Characterization & Driver Specific Trajectory Planning: an Inverse Optimal Control Approach

Christoph Gote, Michael Flad and Sören Hohmann

IEEE International Conference on Systems, Man and Cybernetics 2014, San Diego, CA, USA

# ADDITIONAL SKILLS AND ACHIEVEMENTS

IT Skills

Advanced Matlab, LaTeX, Microsoft Office, iWork, Microsoft Windows, Mac OS X

Intermediate C++, C#, Delphi, Python, HTML, Ubuntu

Basic R, Swift, Java, SQL, VHDL, UML, VBA, Autodesk Inventor

Languages

German (native), English (fluent), Dutch (intermediate), Italian (basic), Latin

Personal Interests

Piano, Drums and Percussion (played 7 years in symphony orchestra and music societies, led percussion group) Making and Programming (scratch-built an Ubuntu based home server; working on a 3D carving machine)