



Sarah Tell

Ph.D., BBA



Sarah Tell



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About me

My name is Sarah, I am a mother to two girls and have a Ph.D. in Structural Engineering and Bridges. After my doctoral defence last year, I have been working as a developer within bridge design at a global consultancy firm. I have an interest in programming and want to use the latest techniques in my everyday working life.

Education

- 2017-2021 Ph.D. in Structural Engineering and Bridges
KTH Royal Institute of Technology, Stockholm Sweden.
- 2014-2017 Lic. Eng. in Structural Engineering and Bridges
KTH Royal Institute of Technology, Stockholm Sweden.
- 2012-2014 M.Sc. in Civil and Architectural Engineering
KTH Royal Institute of Technology, Stockholm Sweden.
- 2011-2014 BBA, Business Administration
Stockholm University, Stockholm Sweden.
- 2009-2012 B.Sc. in Civil Engineering and Urban Management
KTH Royal Institute of Technology, Stockholm Sweden.

Experience

- 2021- Developer and bridge designer.
WSP Bridge automation, Stockholm Sweden.
As a developer and bridge designer, I am working with automation of capacity calculations and construction drawings. I have mainly been working on an application that automatically generates a model of a slab bridge in a finite element (FE) software which performs the structural analyses. The application is written in Python using a SDK within the FE software. The results obtained from the analyses are stored as input to supplementary verifications and design calculations, such as fatigue of the constituent materials in the bridge caused by cyclic loading from road traffic.
- 2014-2021 Ph.D in Structural Engineering and Bridges.
KTH Royal Institute of Technology, Stockholm Sweden.
I was employed as a doctoral student for 4.5 years active time (on parental leave for 2 years in total), with structural dynamics as main topic. The aim of my research was to propose and evaluate a method for vibration mitigation of high-speed railway bridges. During my studies, I had the opportunity to be a visiting scholar at the University of Illinois at Urbana-Champaign (USA) to perform real-time hybrid simulations of a bridge model and a physical magnetorheological damper. I was a teaching assistant in the master courses AF2011 *Structural Dynamics for Civil Engineers* och AF2024 *Finite Element Methods in Analysis and Design*. As a teaching assistant, the main tasks were to help the students with exercises and laborations, as well as correcting exercises and exams.
- 2014 Master thesis student.
Department of Bridges, Tyréns, Stockholm Sweden.
- 2013 Summer Intern.
Department of Geostuctures, Sweco, Stockholm Sweden.
- 2011-2012 Summer Intern.
Samhällsbyggnadskontoret Kalmar kommun, Kalmar Sweden.
- 2011 Intern.
Infrastructure construction, PEAB, Solna Sweden.



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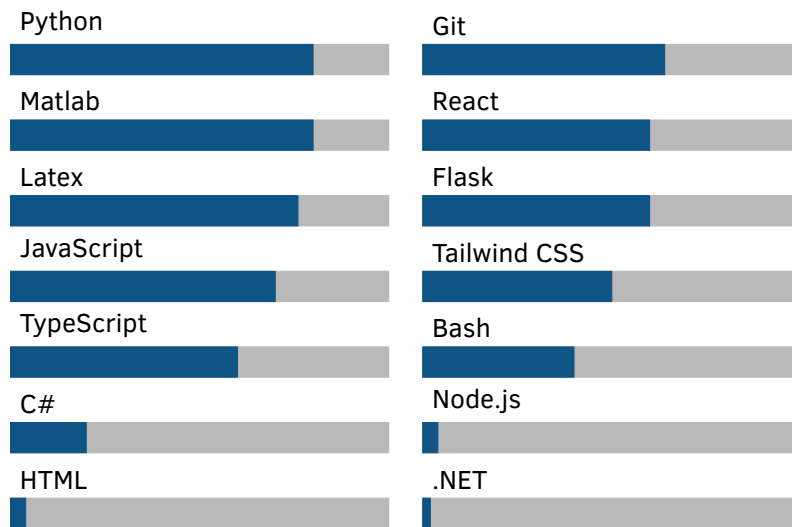


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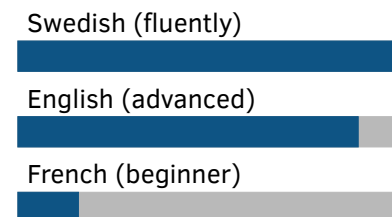


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Knowledge



Languages



Publications, by selection

- 2021 *Vibration mitigation of high-speed railway bridges - Application of damping devices in theory and practice.*
Doctoral Thesis in Structural Engineering and Bridges.
- 2021 *Real-time hybrid testing for efficiency assessment of magnetorheological dampers to mitigate train-induced vibrations in bridges.*
International Journal of Rail Transportation 1-20, 2021.
- 2020 *Probability-based evaluation of the effect of fluid viscous dampers on a high-speed railway bridge.*
Structure and Infrastructure Engineering, E-publication.
- 2017 *Vibration mitigation of high-speed railway bridges - Application of fluid viscous dampers.*
Licentiate Thesis in Structural Engineering and Bridges.
- 2017 *Application of fluid viscous dampers to mitigate vibrations of high-speed railway bridges.*
International Journal of Rail Transportation 5(1): 47-62.
- 2016 *Structural Control of high-speed railway bridges by means of fluid viscous dampers.*
Presented at the conference IABSE 2016, Stockholm Sweden.
- 2015 *Parametric evaluation of viscous damper retrofit for high-speed railway bridges.*
Presented at the conference COMPDYN 2015, Crete Greece.