

# Matthew Fullerton

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*I've been involved in R&D and software development for over 10 years: starting with video enhancement for people with visual impairment, leading later to work on driving simulation for use in studying night-driving difficulties. After several years of research in the field of driving and transportation, I now work as a consultant, focusing on software solutions for mobility and environment data-driven projects.*

*Further information about me and my work including a list of publications from my time in research can be found on [LinkedIn](#). Code contributions can be found on [GitHub](#).*

## Professional Experience

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| <b>10/2016-3/2017</b> | <b>Climate-KIC stipend holder for Hawa Dawa UG, Munich</b><br><i>Software Engineer</i> <ul style="list-style-type: none"><li>• Building infrastructure for the collection and model-based visualization of air quality data from a sensor network</li></ul>   |
| <b>4/2016-12/2016</b> | <b>Impact Hub/Eight Billion Lives fellow for Hawa Dawa, Munich</b><br><i>Software consultant and co-founder of the resulting company</i>  |
| <b>1/2015-12/2015</b> | <b>EXIST stipend holder for Smartlane, Munich</b><br><i>Technical Director and co-founder of the resulting company</i> <ul style="list-style-type: none"><li>• Development of a flexible platform for data processing and visualization for the mobility industry</li></ul>   |
| <b>4/2013-present</b> | <b>Freelance Software/Web Developer</b><br><i>On the following projects (current projects marked in bold):</i> <ul style="list-style-type: none"><li>• <a href="#">Smartlane UG, Munich</a><ul style="list-style-type: none"><li>◦ <a href="#">Resource Projects (Data Import)</a> (a project for the <a href="#">NRGI</a>)</li><li>◦ <a href="#">SmartlaneDISPATCH!</a> mobile app</li><li>◦ Mobility data visualization examples (2015)</li></ul></li><li>• Open Knowledge Foundation Germany:<ul style="list-style-type: none"><li>◦ <b>2030 Watch - a data visualization platform for monitoring progress towards the 2030 Sustainable Development Goals</b></li><li>◦ <b>Technical support and development work for <a href="#">offenesdatenportal.de</a> (Niederrhein region) and <a href="#">daten.aachen.de</a> (Aachen)</b> (CKAN-based)</li><li>◦ Open Data Monitor (<a href="#">open-data-map.de</a>, <a href="#">offenedaten.de</a>) - harmonization and analysis of multiple German data catalogs (CKAN and non-CKAN), web crawling and scraping for civic data sources - 2014</li><li>◦ Government spending visualizations (Berlin, Rheinland-Pfalz) - 2014-15</li></ul></li><li>• <a href="#">Open Data Census 2013</a> - improvements to backend and frontend mostly to improve the submission and review process (<a href="#">Open Knowledge</a>, 2013-14)</li></ul> |

- Motion tracking data capture (University of Munich, Psychology Faculty, 2013-14)

**3/2009-6/2014**

**Chair of Traffic Engineering and Control, Technische Universität München**

*Research Assistant*

- Responsible for partner contribution to an EU FP7 project (SOCIONICAL - exploring the interfaces between human behavior and technology that influences that behavior in the realm of traffic and crowd management)
- Teaching and student thesis supervision

## Higher Education

**10/2007-7/2009**

**MSc in Electronics by Research, University of York, UK**

*Thesis: Development of a System to study Glare Sensitivity in a Driving Simulator*

- The research was conducted at Eli Peli's Lab at the Schepens Eye Research Institute, Boston (Harvard Medical School affiliate) during a paid research stay (8/2007-11/2008)

**10/2002-7/2007**

**MEng in Electronics with Media Technology and a Year in Industry, University of York, UK**

*Thesis: StroMoHab - Environment and Task Creation*

- My year in industry was spent carrying out research at Eli Peli's Lab at the Schepens Eye Research Institute, Boston (Harvard Medical School affiliate)

## Skills and other activities

**Languages**

English: native  
German: fluent  
French: can get by

**Activism and  
community  
contributions**

- Development of websites for non-profit organisations (e.g. International Campaign for Justice in Bhopal, You Are Here News Magazine (below))
- Co-founder of local volunteer video news magazine show in Cambridge, MA, USA
- Active Member of Speak, People and Planet, University Radio York and York Student Television during my time in York
- I act as a maintainer for dataportals.org and the Recline.js data visualization library. I set up and maintain a document OCR service at givemetext.okfnlabs.org.

**Computer**

- Languages: Python, JavaScript/node.js, Java, C/C++
- Web: HTML(5), CSS(3), Flask, Express, jQuery, React.js, AngularJS, Bootstrap, ElementalUI
- Mobile: Cordova, Android SDK
- DevOps/Sysadmin: Docker, Npm/Grunt, AWS, Bash, Supervisor, Cron
- Data: SQL, MySQL, Postgresql, Accumulo/Hadoop, Kafka
- Office, graphics and video: OpenOffice, MS Office, Markdown, LaTeX, GIMP, Final Cut Pro