# Mark E. Fuller, Ph.D.

*Senior Engineer and Linux Administrator*

+972 53 872 6579
fuller@fedoraproject.org
www.stossrohr.net
fuller0
mefuller

## Summary

I am an experienced research engineer and Linux administrator with a doctorate in chemical engineering. I have extensive interdisciplinary skills in mechanical design (CAD, FEA), scientific computing for optimization and analysis (Bash, Matlab, Python, Fortran), experimental operation and data acquisition (LabVIEW).
I am a problem-solver looking to apply my skills in data analysis, software development, testing, and distribution, and Linux system administration to a new engineering role.

## Technical Skills

| | | | |
|---|---|---|---|
| Software Development | Git, Python, BASH, Fortran, Matlab/Octave | Mechanical Design | 3-D CAD, FEA, Solidworks, Comsol |
| Administration | Fedora, Ubuntu, Enterprise Linux | Documentation | LaTeX, LibreOffice, MS Office |

## Experience

2022–present **DevOps/MLOps Engineer**, *Mobileye*, Israel.
- TBD

2021–2022 **Postdoctoral Researcher and Laboratory Manager**, *Technion Israel Institute of Technology*, Haifa, Israel.
- Development and testing of automated routines for computational chemistry and kinetic mechanism construction (Python, BASH, Fortran)
- Deployment, maintenance, and administration of research group Linux computers (Ubuntu, Fedora, Enterprise Linux)

2019–2021 **Postdoctoral Researcher**, *RWTH Aachen University*, Aachen, Germany.
- Research lead for nitrogen combustion chemistry
- Experimental investigation and kinetic mechanism development for bio- and renewable liquid transportation fuels (Python, LabVIEW)
- Mechanical design and testing of a high-pressure diaphragmless shock tube valve (3-D CAD)

2018 **Guest Researcher**, *Institut de Combustion Aérothermique Réactivité et Environnement*, Orléans, France.

2016 **Guest Graduate Appointment**, *Argonne National Laboratory*, Lemont, IL USA.

2014–2019 **Teaching Faculty**, *Brown University*, Providence, RI USA.

2011–2014 **Mechanical Engineer**, *Naval Undersea Warfare Center*, Newport, RI USA.
- Testing and computer modelling of fuel cell and battery systems (Matlab, Fortran)
- Development of analytical models for vehicle sizing analyses
- Information Assurance Work Force - Linux administrator and network security, Security+ certified

## Education

2019 **Doctor of Philosophy, Chemical Engineering**, *Brown University*, Providence, RI USA.
- Dissertation: "Design and Construction of a Shock Tube Facility for Investigations of Nitrogenated Fuel Additives" advised by Prof. C. F. Goldsmith
- Extensive use of Matlab, Python, LabVIEW, Solidworks 3-D CAD for computation, design and analysis

2015 **Master of Science, Chemical Engineering**, *Brown University*, Providence, RI USA.

2011 **Master of Science, Mechanical Engineering**, *Cornell University*, Ithaca, NY USA.

2009 **Bachelor of Science, Mechanical Engineering**, *Brown University*, Providence, RI USA.
- Graduated Magna Cum Laude and elected to Tau Beta Pi, Sigma Xi, and Phi Beta Kappa

## Open-Source Software Development and Contributions

- Contributing developer to the Cantera chemical kinetics, thermodynamics, and transport tool suite (C++, Python, Fortran, git); responsible for RPM packaging for Fedora and Enterprise Linux
- Co-maintainer of the LaTeX moderncv package (used to generate this CV)
- Contributing developer to the Reaction Mechanism Generator, Automatic Rate Calculator, and The Tandem Tool (T3) for automated computational chemistry and mechanism development, organized under the Green Research Group at MIT (Python, version control with git/GitHub)

## Languages

| | | | |
|---|---|---|---|
| English | Native | German | Near-Native |
| Spanish | Proficient | Hebrew | Intermediate |