Curriculum Vitae

Title, Family Name, First Name

Dr. Soorali Ganeshamurthy, Balakrishna

Turnackerstr 19, 70794, Filderstadt, Germany.
balakrishna@web.de
+49 (0) 176-3096-2464
21.August.1983
Indian

Technical Skills :

- **Languages:** English (Business fluency), **German (B2 Level)**
- **Programming**: **R**, Python, **RShiny**, Javascript, Matlab, JAVA and LabVIEW.
- **Visualization & Reporting : RShiny**, Jupyter Notebook, R-Markdown, LaTeXand D3.js.
- **Interests:** Deep Learning, Ensemble learning, Artificial Neural Networks, SVM and Visual analytics.
- **Agile & Productivity:** SCRUM, JIRA and Confluence, GIT and SVN.
- Skills in web-frontend development (HTML5, CSS, PHP, etc.)

Education Summary:

- **Ph.D. Applied Physics** - University of Saarland (UDS), SaarbrÃŒcken, Germany.
- **M.Sc. Theoretical Physics** - Kuvempu University, Karnataka, India.
- Pursuing **"Deep Learning Specialization"** from Coursera

Resume:

I am a Physicist and a Data scientist experienced with advanced Machine learning algorithms and visual analytics. I have been an active Kaggler, my interests are in finding solutions to complex business challenges through advanced analytics. My skills-set covers Mathematical methods, Machine learning, Signal processing, Statistical inference, Bigdata processing and Visualization. I have been working on multiple projects such as Lead conversion, Telematics (Fleet management) and Collection optimization. For many years I have worked as a researcher, in various high-performance research and development environments that are focused on cutting edge innovation in science and technology.

Work Experiences:

Data Scientist, Daimler Financial Services (DFS), Stuttgart. **11/2016- Current**

- **Lead Data scientist:** Prediction of Lead conversions potential for online leads.
  - Built stacked model prediction models with various machine learning techniques such as Tree - based models Support Vector Machines and Artificial Neural Network.
  - Built a fully functional Shiny Application for our business customer.
  - I have been a part of Scrum environment to deliver innovative results under tight timeline constraints and technical difficulties
- **Lead Data Scientist :**
  - Car2GO and Car2Share : Building models for Fleet management, Predictive maintenance and Optimizing resource allocation.
- **Supporting Data Scientist** :
  - Customer risk prediction for collection department in South Africa.
- **SpringbokView**:
  - Created interactive visualization package in R, based on D3.js. This package consists of many advanced visualization types applicable to R data frames. Some of the major visualisation functions includes Parallel coordinates, Association rule mining and Treemaps.

Postdoctoral Researcher, INM - Leibniz Institut fÃŒr neue Materialien, Saarbrucken, Germany. **07/2015- 12/2015**

- Measurement and Data Analysis, Data visualization & Background in optimization problems.
- Image processing & Mathematical modeling in Matlab and Python.

PhD student, INM - Leibniz Institut fÃŒr neue Materialien, Saarbrucken, Germany. **07/2011- 06/2015**

- Research into nano mechanical properties of graphitic materials
- High resolution imaging with Atomic Force Microscope in Ultra High Vacuum.
- Image processing & Mathematical modeling in Matlab and Python.
- Research publications in very high ranking journals.

Publications:

Peer-reviewed publications in high ranking journals and cited multiple times.

1. **Balakrishna, S. G.,** de Wijn, A. S., & Bennewitz, R. (2014). Preferential sliding directions on graphite. Physical Review B, 89(24), 245440.
2. Klemenz, A., Pastewka, L., **Balakrishna, S. G.,** Caron, A., Bennewitz, R., & Moseler, M. (2014). Atomic scale mechanisms of friction reduction and wear protection by graphene. Nano letters, 14(12), 7145-7152.
3. Chan, N., **Balakrishna, S. G**., Klemenz, A., Moseler, M., Egberts, P., & Bennewitz, R. (2017). Contrast in nanoscale friction between rotational domains of graphene on Pt (111). Carbon, 113, 132-138.