Curriculum Vitae

Title, First Name, Family Name

Dr. Balakrishna Soorali Ganeshamurthy

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Indian

Skills :

- **Languages:** English (Business fluency), **German (B2 Level)**
- **Programming**: Strong programming skills in **R**, Python, Javascript, Matlab, JAVA and LabVIEW.
- **Visualization & Reporting : RShiny**, Jupyter Notebook, R-Markdown, LaTeXand D3.js.
- **Hands on experience:** R, Ensemble learning, Artificial Neural Networks, SVM and Visual analytics.
- **Agile & Productivity:** SCRUM, JIRA , 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 with a strong educational background in Physics. I have been an active Kaggler, my interests are in finding solutions to complex business challenges through advanced analytics. My skills-set covers advanced mathematical methods, Machine learning, Signal processing, Statistical inference, Bigdata processing, and Visualization. As a data scientist 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 automated ensemble prediction models with various machine learning techniques such as 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. it consists of many advanced visualization types applicable to many scenarios .Some of the major visualisation functions includes Parallel coordinates, Association rule mining.

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.