Suryoday Basak

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Curriculum Vitae

Personal Statement

I am a dedicated researcher with proven analytic and reasoning skills, seeking to apply my abilities to solve upcoming problems in interdisciplinary fields of study by using methods in data analytics, mathematical modeling, and machine learning.

Education and Work Experience

Research Associate, Dept. of Computer Science and Engineering **July 2017 – Present**
PESIT Bangalore South Campus

- Working on problems in astroinformatics and mathematical modeling in finance
- Guiding senior students with curriculum-related presentation

Bachelor of Engineering, Computer Science and Engineering **August 2013 – July 2017**
PESIT Bangalore South Campus

- 66.14% aggregate, first class
- Pursued research since sophomore year

Skills and Interests

- **Research Interests**: Machine Learning, Mathematical Modeling, Astroinformatics, Finance Technology, Brain Computer Interfacing, Image Processing
- **Programming Languages**: C, C++, Python, Java, Matlab
- **Relevant Courses**: Design and Analysis of Algorithms, Discrete Mathematics, Formal Languages and Automata Theory, Pattern Recognition, System Modeling and Simulation, Engineering Mathematics (four courses spanning four semesters)
- **Languages**: English, Hindi, Bengali

Papers and Presentations

- Saha, S., **Basak, S.**, Safonova, M., Bora, K., Agrawal, S., Murthy, J. and Sarkar, P., Theoretical Validation of Potential Habitability via Analytical and Boosted Tree Methods: An Optimistic Study on Recently Discovered Exoplanets, submitted to *Astronomy and Computing* (Elsevier)
- [Work in progress in collaboration with Jayant Murthy] Exploring the GALEX Catalog with Statistical Modeling and Machine Learning
- **Basak, S.**, Saha, S., Kar, S., Khaidem, L. and Dey, S. R., Predicting the Direction of Stock Market Price Using Tree Based Classifiers, submitted to *Computational Economics* (Elsevier)
- **Basak, S.**, Saha, S., Bora, K., Theophilus, A. J., Safonova, M., Murthy, J., Deshpande, G. and Agrawal, S., CEESA Meets Machine Learning: A Constant Elasticity Earth Similarity Approach to Habitability and Classification of Exoplanets, poster presented on a special track at Drone Computing Symposium, IEEE Bangalore Section, *paper in progress*
- Bansal, A., Saha, S., Mathur, A., Ginde, G., Saha, S., Meher, S. K., Anil, S., Basu, A., Sampatrao, S. G., Dey, S. R. and **Basak, S.**, Pitfalls of Publish or Perish: A novel framework for Modeling and Ranking Internationality of Scholarly Publications, submitted to *Scientometrics* (SCIM)

- **Basak, S.**, Design of Assistive Speller Machine Based on Brain Computer Interfacing, *Handbook of Research on Applied Cybernetics and Systems Science*, 2017, ISBN-13: 978-1522524984
- Agrawal, S., Safonova, M., Bora, K., **Basak, S.** and Saha, S., Note on Proxima Centauri b: Theoretical validation of potential habitability via CD-HPF, Astrobiology Newsletter, 2017, Vol.10, No.4
- **Basak, S.** and Murthy, V., Alternate Interface for Electronic Drum Kits Based On Computer Vision, *International Journal of Applied Engineering Research (IJAER)*, 2015, Vol.10, No.48 (Special Issues), pp.32578-32582

Leadership and Teaching Roles

- Actively involved in setting up the Astroinformatics Research Group (AstrIRG) under the Bangalore Section of IEEE Computer Society
- Seminar guide of senior students: currently guiding five students with university curriculum related presentation for the academic year 2017–18
- Technical Advisor of PESITSouth IEEE Computer Society (CompSoc) Chapter (June 2017–May 2018)
- Secretary of PESITSouth ACM Student Chapter (June 2016–May 2017)

Volunteer Activities

- Volunteer for the first Drone Computing Symposium by IEEE Computer Society Bangalore Section
- Chief organizer of Machine Learning 101 workshop in PESIT Bangalore South Campus (April–May 2017)
- Part of organizing team of inGenius 2016 Hackathon (September 2016)
- Chief organizer of Python 101 workshop in PESIT-BSC (April–May 2016)
- Programming contest organizer in PESIT-BSC for the years 2014-2016

Awards and Recognition

- Best Graduating Student Award – Department of Computer Science and Engineering, PESIT Bangalore South Campus (2017)
- Runner-up at inGenius Hackathon 2014

Recreation

I have been playing the Guitar and composing music for nearly a decade. I also enjoy writing and have recently started an on-line blog (https://medium.com/@suryodaybasak) where I write about technological topics that interest me. Apart from that I enjoy physical exercise and sports.

External Links

Astroinformatics Research Group	AstrIRG.org
SciBase	sahascibase.org
ResearchGate Profile	www.researchgate.net/profile/Suryoday_Basak
Research Portfolio	www.suryodaybasak.info/portfolio.pdf

References

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Centre for Studies in Social Sciences, Calcutta, India; IZA Institute of Labor Economics, Bonn, Germany
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