DR. ACHAL AGRAWAL

Assistant Professor (Selection Grade) - Computer Science

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EXPERIENCE

Assistant Professor - Selection Grade
UPES ☍

📅 Jan 2022 – Present   📍 Dehradun, India

- **Founder of Roadz** ☍ - An app to automatically detect potholes and warn future users of impending dangers.

Data Scientist for Social Good
CropIn ☍

📅 Jan 2021 – Dec 2021   📍 Bengaluru, India

- Remote Sensing Applications for Agriculture
- Wheat Detection in Nigeria for Flour Mills Association, Nigeria
- Rice Detection in Punjab for Punjab Agricultural Export Corporation

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Founder
DataWhiz ☍

📅 June 2020 – Dec 2020   📍 Hyderabad, India

- Conducted Data Science Bootcamp Remotely (Rated 4.5/5 by participants)

Assistant Professor - Computer Science
Mahindra University ☍

📅 July 2018 – June 2020   📍 Hyderabad, India

- **Co-Founder of CovIndia** ☍ - India's first district-wise tracker for Covid-19. Over a million visits in first two weeks. Data sought by World Bank, IMD and researchers from IISc, Yale-NUS, IITs.
- Main Instructor : Big Data, Game Theory, Data Science, Python
- Lab Instructor : Machine Learning, Deep Learning, Data Structures, Introduction to Computer Science in C
- Organiser - Front-End Workshop, Smart India Hackathon Selections

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Data Scientist
RATP - Paris Transport Authority ☍

📅 Mar 2017 – June 2018   📍 Paris, France

- Real Time Predictive Maintenance of suburban metro trains,
- Estimation of passenger load in the bus network based on noisy data. (Cleaning of data, Visualization of data)

EDUCATION

PhD - *Information and Communication Technology and Sciences*
University of Paris Saclay ☍

📅 July 2016   📍 Orsay, France

Master - *Network Industries and Digital Economony* ☍
Ecole Polytechnique ☍

📅 October 2012   📍 Palaiseau, France

Engineer - *Most prestigious Engineering program in France*
Ecole Polytechnique ☍

📅 October 2011   📍 Palaiseau, France

B.Sc. (Hons) - *Physics*
Chennai Mathematical Institute ☍

📅 August 2008   📍 Chennai, India

SKILLS

- **Programming**: Python, JavaScript, C, R
- **Data Analysis**: pandas, sklearn, tensorflow, keras.
- **Data Visualisation**: matplotlib, plotly, bokeh
- **Backend**: flask, nodeJS (express)
- **Frontend**: react, bootstrap, css, html
- **DB**: mongoDB, elasticsearch, mySQL
- **DevOps**: AWS, docker, git, virtualbox
- **Remote Sensing**: QGIS, Google Earth Engine

AWARDS

- **Smart India Hackathon** (2019) - Mentor of the winning team (complex category) - Problem statement provided by Aurobindo Pharmaceuticals.
- **Eiffel Scholarship** (2009 - 2012) - Prestigious scholarships given by the Ministry of External Affairs (France) for higher studies in France.
- **SIA-NOL Scholarship** (2003 - 2005) - Given to a selected few Indian students for Junior College studies in Singapore (2 years).
- **Bronze Medal** (2005) in Singapore National Physics Olympiad. Honourable Mention in Singapore National Mathematics Olympiad.
- **NTSE Scholarship** (2003) - Given to top 1000 indian students of Class 10 every year

SELECT PUBLICATIONS

Journal

- C. Zhang, S. Lasaulce, **A. Agrawal**, and R. Visoz, 'Distributed Power Control with Partial Channel State Information: Performance Characterization and Design', **Transactions on Vehicular Technology** Vol. 68, no. 9, pp. 8982-8994, Sept. 2019

Conference

- B. Perabathini, K. Tummuri, **A. Agrawal**, and V. Varma, 'Efficient 3D placement of UAVs with QoS assurance in ad hoc wireless networks', The 28th International Conference on Computer Communications and Networks (ICCCN 2019) , Valencia, Spain, July 29 - August 1, 2019

- **A. Agrawal**, S. Maddila, C. Zhang, B. Perabathini, and S. Lasaulce, 'Cooperative Energy Efficient Resource Allocation in Fast Fading Interference Networks', International Conference on Wireless and Mobile Computing, Networking and Communications, (WiMob 2019), Barcelona, Spain, October 21-23, 2019

- **A. Agrawal**, F. Danard, B. Larrousse, S. Lasaulce, 'Implicit coordination in two-agent team problems with continuous action sets. Application to the Witsenhausen cost function', European Control Conference (ECC 2015) , Linz, Austria, July 15 - July 17, 2015

- O. Beaude, **A. Agrawal**, S. Lasaulce, 'A framework for computing power consumption scheduling functions under uncertainty', IEEE International Conference on Smart Grid Communications 2015 , Miami, USA, Nov 2 - Nov 5, 2015

- C. Zhang, **A. Agrawal**, V.S. Varma, S. Lasaulce, 'Thresholding-based distributed power control for energy-efficient interference networks.' IEEE 29th Annual International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), Bologna, Italy Sep 9 2018