Avinash Umashankar

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PERSONAL STATEMENT

A socially outgoing, curious and aspiring science graduate with technical and soft skills. Seeking a research associate/assistant position that would help hone my skills, grow in my career and challenge me to bring out the best in me.

EDUCATION

MSc Physics (5-years integrated)   2019 – 2024
SASTRA Deemed University, Tamil Nadu
CGPA- 7.95

Senior Secondary Education   2017 – 2019
DAV Public School, Chennai, Tamil Nadu
Percentage- 92%

Secondary Education   2015 – 2017
DAV Public School, Chennai, Tamil Nadu
CGPA-9.2

ACADEMIC EXPERIENCE

Project Associate, Dept. of Aerospace Engineering   06/2024 – present
Indian Institute of Science (IISc)
Project Supervisor: Dr. Rajesh Chaunsali
- Application of sparse identification of nonlinear governing equation on parametric systems.
- Skills- MATLAB, Python, 3-D printing, meta-materials, experimental skills, etc.

Research Intern, Indian Institute of Science (IISc)   01/2024 – 05/2024
Supervisor: Rajesh Chaunsali
Sparse Identification of non-autonomous systems
Masters thesis: Sparse Identification of Vibratory Systems 🔗
- Applying sparse identification algorithm on real world nonlinear systems to identify dynamics of system from the data.
- Skills- Python, MATLAB, machine learning, image processing, etc.

Atmospheric Science Internship Training program, Vayu Bhuvan.   08/2022 – 09/2022
Supervisor: Venkatanathan .N

- Aimed to understand the Atmospheric weather phenomena and forecast using statistical tools and basic machine learning models. Studied the correlation between different Atmospheric Parameters using the same.
- Skills- Statistical modelling, machine learning, atmospheric science python, etc.

Weather forecast using Recurrent Neural networks   09/2022 – 08/2023
Minor project
- Forecasting various Atmospheric parameters using Bidirectional Long-Short Term memory (BiLSTM) algorithm and time series data.
- Skills- Deep learning, machine learning, python, etc.

Solid Earth Tides and earthquake analysis   2021 – 2023
Supervisor: Venkatanathan .N
- Analysis of the seismic data and solid earth tides to comprehensively investigate and analyze the behavior of different earthquakes.
- Skills: ArcGIS, MATLAB, python, excel, etc.

SKILLS

• Statistical Analysis	• Deep learning	• Neural Networking	• Matlab
• Python	• C/C++	• Elixir	• Aurdino
• Fortran	• Microsoft Office		

WORKSHOPS AND COURSES

Advanced Aurdino and Robotics course
4 weeks course on basics and advanced robotics.
Skills- Aurdino, sensor designs, motor controls, etc.

TCS ion career edge- Young Professional course
Soft skills development course.

EXTRA-CURRICULAR

Organiser and Core Committee
COSMOS club
Official Physics club of Sastra

Volunteer
Kanaa founation
An NGO based on chennai, training underprivileged kids for engineering and medical entrance exams.

REFERENCES

Rajesh Chaunsali, *Assistant Professor*, Indian Institute of Science, Bangalore
rchaunsali@iisc.ac.in, +91-80-2293-3028

Dr. Venkatanathan .N, *Senior Assistant Professor*, SASTRA deemed university, Thirumalaisamudram.
venkatanathan@eee.sasta.edu, +91 94448 07900