

Kumar Anurag

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Introduction

I am a PhD student at the University of New Mexico, working at the intersection of Machine Learning and Controls. My research combines machine learning, system modeling, and real-time sensor data to develop robust algorithms for human-machine interaction.

Education

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|----------------|--|---------------------|
| Ph.D. | University of New Mexico , Mechanical Engineering Department, <i>Albuquerque, NM, US</i> | Aug 2024 – May 2028 |
| | <ul style="list-style-type: none"> • Currently pursuing Doctor of Philosophy (Ph.D.) in Controls & Machine Learning • Optimization and Estimation Lab 🔗 • GPA: 3.91/4.0 • Coursework: Neural Networks, Dynamic Systems Analysis and Design, etc. | |
| M.Tech. | Birla Institute of Technology and Science, Pilani , <i>Rajasthan, India</i> | Aug 2021 – Dec 2023 |
| | <ul style="list-style-type: none"> • Earned Master of Technology (M.Tech.) degree in Data Science and Engineering • GPA: 7.78/10.00 • Coursework: Data Mining, Big Data Systems, Deep Learning, Stream Processing and Analytics, etc. | |
| B.Tech. | Guru Gobind Singh Indraprastha University , <i>Delhi, India</i> | Aug 2016 – Sep 2020 |
| | <ul style="list-style-type: none"> • Earned Bachelor of Technology (B.Tech.) degree in Computer Science and Engineering • GPA: 8.77/10.00 • Coursework: Applied Mathematics, Applied Physics, Computer Organization and Architecture, Computer Graphics and Multimedia, Data Structures and Algorithms, etc. | |

Experience

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|---|---|
| University of New Mexico (UNM) , Research Assistant, <i>Full-time</i> | New Mexico, USA
Aug 2024 – Present |
| <ul style="list-style-type: none"> • Authored a paper titled "RCUKF: Data-Driven Modeling Meets Bayesian Estimation" which got accepted at IFAC MECC 2025. • Presented a paper titled "Towards Resilient Tracking in Autonomous Vehicles: A Distributionally Robust Input and State Estimation Approach" at IFAC IAV 2025. | |
| Tata Consultancy Services (TCS) , Automation Lead, System Administrator, <i>Full-time</i> | Hyderabad, India
Oct 2020 – Jul 2024 |
| <ul style="list-style-type: none"> • Spearheaded multiple projects, including Solarwinds Ticket Analyzer (leveraging Machine Learning), Oracle Database End-to-End Patching Automation, and the SQL DB Password Reset Portal. • Conducted comprehensive training sessions for both on-site and offshore clients, demonstrating the implementation of AI-powered models, resulting in significant reductions in manual effort and cost savings for the client. • Awarded Winner of Info-Security Fest 2023 held at the organization's premises. | |
| CampK12 , Coding Instructor, <i>Part-time</i> | Remote |

- Delivered courses in Python Core, Python Advanced, Virtual Reality (HatchXR), The AI Playground (JS), and MIT App Inventor for Android app development.
- Contributed to curriculum development by designing a new Data Structures course using Python.
- Recognized as Best Performer for receiving the highest parent feedback across multiple demo sessions.

Jun 2020 – Jun 2022

Research Grants

MECC 2025 Student Grant Award, by IFAC Modeling, Estimation and Control Conference (MECC)

Aug 2025

- Selected for the prestigious student grant award by IFAC Modeling, Estimation and Control Conference (MECC) 2025.

Honors & Awards

Star of the Month Award, by TCS

Jul 2024

- Recognized with the Star of the Month award for developing a rapid automation solution for the SQL Accounts DB Password Reset Portal, significantly reducing customer incident volume.
- Certificate link [🔗](#)

Kubernetes Badge, by Google

Nov 2023

- Earned the 'Deploy to Kubernetes in Google Cloud' skill badge for successfully demonstrating expertise in deploying applications across hybrid and multi-cloud environments.
- Certificate link [🔗](#)

Contextual Master Award, by TCS

Jul 2023

- Recognized as a Contextual Master at TCS for developing end-to-end AI-driven automation solutions that enhanced accuracy, reduced manual effort, and delivered significant client savings.
- Certificate link [🔗](#)

Smart India Hackathon Winner, by Government of India

Mar 2018

- Winner of Smart India Hackathon 2018 as part of Team Embers Tech for developing a centralized hospital management system.
- Certificate link [🔗](#)

Best Research Paper Award, by GGSIP University

Feb 2018

- Awarded Best Paper for "Effects of Demonetization on Digital Banking" at the National Conference on Demonetization: Demystified, organized by the School of Management, Delhi Technical Campus, GGSIP University.
- Certificate link [🔗](#)

Best PPT Presentation, by GGSIP University

Mar 2017

- Secured 1st position in the PPT Presentation event at the Annual Fest "Vikiran" 2017, organized by Delhi Technical Campus, GGSIP University.
- Certificate link [🔗](#)

Certificate of Academic Excellence, by GGSIP University

Mar 2017

- Awarded Certificate of Academic Excellence for securing 3rd position at the institute level in the university examination for B.Tech (CSE) during the academic session 2016-17.

- Certificate link [↗](#)

Publications

- RCUKF: Data-Driven Modeling Meets Bayesian Estimation**, preprint Jul 2025
K. Anurag, K. Azizi, F. Sorrentino, W. Wan
IFAC Modeling, Estimation and Control Conference (MECC), 2025
arxiv.org/abs/2508.04985 [↗](#)
- Towards Resilient Tracking in Autonomous Vehicles: A Distributionally Robust Input and State Estimation Approach**, preprint Apr 2025
K. Azizi, K. Anurag, W. Wan
IFAC Intelligent Autonomous Vehicles (IAV), 2025
arxiv.org/abs/2504.09974 [↗](#)
- JavaScript Book**, Amazon Nov 2020
K. Anurag
ASIN: B08PDQZ1SF [↗](#)
- Python Book**, Amazon Mar 2020
K. Anurag
ASIN: B086BD1CN7 [↗](#)

Skills

- Languages:** C, C++, Python, C#, SQL, JavaScript, PowerShell, Bash
- Technologies:** .NET, Microsoft SQL Server, XCode, Unity-3D
- Soft Skills:** Leadership, Problem Solving, Team Player, Communication Skills

Exam Scores

- GRE:** Scored 328/340 Oct 2023
- Microsoft Technology Associate (MTA) Exam:** Scored 95% Jul 2018

References

- Dr. Wenbin Wan** [↗](#), Assistant Professor, University of New Mexico wwan@unm.edu

Declaration

- I hereby declare that all the facts mentioned above are accurate, and I take full responsibility for their accuracy.



Kumar Anurag
Albuquerque, Aug 05, 2025