Amey Noolkar

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Amey Noolkar
coder-amey

Summary

AI Researcher | ML Engineer | Data Scientist
UK-trained AI researcher with a master's degree from a top UK university, one published paper at an A-rated conference, 3 years delivering ML solutions, and 2 years teaching ML at university level. Ready to drive cutting-edge AI research and development.

Research & Professional Experience

- **Research Engineer** *Dec 2021 – Jul 2022*
  TCS Research, **Tata Consultancy Services**, Pune, India

  Trained models to predict customer churn with 92% accuracy for an Investment Intelligence project. Delivered production-ready applications of Deep Learning in Finance.

- **Research Fellow** *Dec 2020 – Dec 2021*
  School of Technology & Computer Science, **Tata Institute of Fundamental Research**, Mumbai, India

  Collaborated with a team of leading scientists to successfully develop the Oxygen Planner prototype to mitigate the Oxygen crisis during the 2^{nd} wave of COVID-19 pandemic in India and eliminate shortages with a 99% rate of success.

  Delivered a Monte Carlo simulation model that highlights the impact of vaccination on the spread of COVID-19 in the city of Mumbai. Predicted positive outlook to ease travel restrictions and advised the authorities about the forecast.

- **Data Scientist** *Jul 2019 – Dec 2020*
  Enterprise Analytics Platform for **Deutsche Bank**,
  Tata Consultancy Services, Bengaluru, India

  Functioned in multiple critical client-facing roles to deliver value in terms of data pipeline engineering, automation, service integration and dev-ops co-ordination, in order to fulfill crucial deliverables to develop Big-Data Analytics tools for a Business-Insights Reporting Service for Financial Risk and Compliance Assessment.

Publications & Contributions

Noolkar, A., & Sanchez, V. (2025). **Simultaneous Multi-Object Multi-Camera Trajectory Forecasting (SMO-MCTF)**. *In Proceedings of the Winter Conference on Applications of Computer Vision Workshops (pp. 895-901)*, Feb 2025, Tucson, USA.

MCMOTF Problem Exploration, WPCCS'23
Noolkar A., Sanchez V. (2023). **Multi-Camera Multi-Object Trajectory Forecasting Problem Exploration Talk**. *An exploratory presentation of the main research question of my work on the problem of MCTF, delivered at the Warwick Postgraduate Colloquium on Computer Science*, March 2023, University of Warwick, UK.

Oxygen Planner for States in India
Juneja S., Saptharishi R., Srivastava P., Mittal D., Noolkar A., Eeshan A. (2021). Oxygen Planner for States in India. *A tool for forecasting district-wise weekly oxygen demand by COVID-19 patients and scheduling supply to meet the requirement.*

Education

Ph.D. in Computing Science *Apr 2024 – Oct 2027*
Title: *Digital sensing and intervention for well-being in workplace* (multi-modal bio-metric signal processing)
University of Glasgow, United Kingdom

M.Sc. (by Research) in Computer Science *Sep 2022 – Apr 2024*
Title: *Simultaneous Multi-Object Multi-Camera Trajectory Forecasting (SMO-MCTF)* (Computer Vision)
University of Warwick, United Kingdom

B.Eng. in Computer Engineering *Aug 2015 – Jun 2019*
Modules: *Machine Learning, Digital Logic Design & Analysis, Analysis of Algorithms, Distributed Databases, Discrete Mathematics, Object-oriented Programming*
K. J. Somaiya Institute of Engineering & Information Technology CGPA: 7.54/10
University of Mumbai, India

Teaching & Internships

- **Tutor** *Aug 2024 – Present*
  Student Learning Development, **University of Glasgow**
  And **Graduate Teaching Assistant**
  School of Computing Science, **University of Glasgow**, Glasgow, UK
  Course lead, Lab tutor, Examiner and 1:1 Advisor

- **Senior Graduate Teaching Assistant** *Oct 2022 – Sep 2023*
  Department of Computer Science, **University of Warwick**, Coventry, UK
  Lab tutor, Examiner and Invigilator.

- **Teaching Assistant** *Jul 2021 – Dec 2021*
  School of Technology & Computer Science, **Tata Institute of Fundamental Research**, Mumbai, India
  Lab tutor and exam-lead for Machine Learning

- **Intern** on a **Collaborative Final-Year Engineering Project** *Jul 2018 – Jun 2019*
  Trigger Algorithm Development using a μ-TCA-based FPGA
  Department of High-Energy Physics,
  Tata Institute of Fundamental Research, Mumbai, India
  - Implemented a Proof-of-Concept design of an unsupervised clustering algorithm on a μ-TCA-based Field-Programmable Gate Array (FPGA) with a UART-based FPGA-Computer Communication Interface and successfully demonstrated the use of an FPGA-based high-speed noise filter to clean the signal from the sensors of the Large Hadron Collider (LHC) of the European Organization of Nuclear Research (CERN).

- **Intern** on a **Scientific Software Engineering Project** *Jul 2017 – Jun 2018*
  Fetching LHC Fill Information from Online to Offline Database (LHCFillInfo O2O package upgrade)
  Department of High-Energy Physics,
  Tata Institute of Fundamental Research, Mumbai, India
  In collaboration with: Alignment-Calibration & Databases (AlCaDB) team,
  Compressed Muon Solenoid (CMS) Experiment,
  European Organization for Nuclear Research (CERN), Switzerland
  - Collaborated with scientists and technical stakeholders to successfully develop scripts and automate their execution in a C++-based scientific software framework for retrieving and persisting sensor readings in a database designed for virtual reconstruction of LHC collision sequences.

Awards & Achievements

- **Nokia Global Studentship Scholar**, Nokia Bell Labs Industrial Scholarship (*Aug 2023*)
  College of Science & Engineering, University of Glasgow

- **Winner**, "**Touch The Jovian Moon**" Mission-Design competition (*May 2018*)
  Liquid Propulsion Systems Centre, **Indian Space Research Organization (ISRO)**, India.

- **Student of The Year** (Higher Education) (*Sep 2018*)
  And **Outstanding Boy Student** (Higher & Technical Education)
  Somaiya Vidyavihar group of institutions, Mumbai, India.

- Participant, **ACM-ICPC 2018 Regional Round** (*Dec 2017*)
  International Collegiate Programming Competition, Amrita School of Engineering, Coimbatore, India.

- **Master Nirmala** (Outstanding Boy Student) (*Jan 2013*)
  Nirmala Convent High School, Nashik, India.