Anuj Tambwekar

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EDUCATION

PES University Bengaluru, India
B.Tech in Computer Science and Engineering | First Class with Distinction 2017–2021

- GPA: 9.43/10.00 (Top 5%)
- Specialization: Data Science

National Public School, Indiranagar Bengaluru, India
Primary - Higher Secondary Schooling 2005–2017

- Class XII Percentage: 95.2 % | Class X GPA: 10.0

WORK EXPERIENCE

Microsoft Hyderabad, India
Software Engineer July 2021 - Current

- Developer working on improving the speed and efficiency of Bing's Ranking-as-a-Service (RaaS) Platform.
- Helped develop and integrate a threadsafe lock-free shared memory based LPC library which reduced ranker feature computation latency by roughly 50%

Intel Bengaluru, India
Deep Learning and Computer Vision Intern Jan 2021 - May 2021

- Created a new few-shot batch incremental object detection model to detect rare vehicles found on Indian roads. Resultant publication was accepted at the AVVision Workshop of ICCV 2021.
- Created an automated pipeline to identify images containing these rare vehicles. Used this pipeline to increase the number of available images with rare classes by 4x.

Microsoft Hyderabad, India
Software Engineering Intern May - July 2020

- Re-engineered an analytics application into a collection of microservices for easy scaling. Developed a one-click deployment system for clients to deploy the same on their own Azure subscriptions.

Walnut Knowledge Solutions Bengaluru, India
Content Creation and Software Development Intern May - July 2017 | May - July 2018

- Created an information archival system to store quiz questions, using Python and MongoDB, that integrated directly with Powerpoint. Developed an automated question generation aid using various NLP tools.

PUBLICATIONS

Overviews, PDFs and video presentations covering these papers can be found on my website.

- **A. Tambwekar**, A. Maiya, S. Dhavala and S. Saha, *Estimation and Applications of Quantiles in Deep Binary Classification*, in IEEE Transactions on Artificial Intelligence, doi: 10.1109/TAI.2021.3115078. [Link]

- **A. Tambwekar**, K. Agrawal, A. Majee and A. Subramanian,*Few-Shot Batch Incremental Road Object Detection via Detector Fusion*, in Proceedings of The IEEE/CVF International Conference on Computer Vision (ICCV) Workshops 2021 [Link]

- M. Kashyap*, **A. Tambwekar***, K. Manohara, and S. Natarajan, *Speech Denoising without Clean Data : A Noise2Noise Approach*, in Proceedings of Interspeech 2021, 2716-2720, doi: 10.21437/Interspeech.2021-1130 [Link]

* indicates equal contribution

Talks & Presentations

- *Estimation and Applications of Quantiles in Deep Binary Classification* - The International Conference on Advances in Interdisciplinary Statistics and Combinatorics (AISC) October 2021, UNC Greensboro

Projects in Collaboration with Intel

- **Triviabot** (Jan-Nov 2019) Created an end-to-end open domain question answering voicebot, using Mozilla Deepspeech, BERT and the Tacotron TTS models, that doubles as a CPU benchmarking tool. [Code]
- **AR-VR Development Project** (June-Aug 2018) Developed a tool in Unity for the automatic deployment of colliders on humanoid models for AR and VR applications. (Code withheld due to NDA)

Teaching

- **Peer Teaching Mentor** at PES University   Fall 2019
  Introduction to Operating Systems (UE17CS302)
  Was a supervised peer teacher for a group of 5 students. Took 2 hours of class a week and created tests and study material. Average grade went from 5.0 (E) to 7.0 (C).
- **FLL Mentor** at Shishu Mandir   Fall 2016
  First Lego League 2016-2017
  Was a mentor for the First Lego League Robotics team at Shishu Mandir, a school for underprivileged children. The team made it to the national finals.

Skills and Languages

- **Programming Languages:** Proficiency in Python, well versed in C and C++, some experience with C#
- **Machine Learning Libraries:** Pytorch, Tensorflow, Keras, Scikit-learn, Detectron
- **Cloud Platforms & Tools:** Azure (Certified), AWS, Docker
- **Others:** Arena for Simulation, Unity

Scholarships and Awards

- Prof. CNR Rao Merit Scholarship   All Semesters
- Academic Distinction Award   All Semesters
- 2nd Place : Intel-PESU Student Developer Contest   2019
- 2nd Place : GGJam 2019 Game Dev Hackathon   2019
- 1st Place : Intel AR/VR Development Contest   2018
- 1st Place : GGJam 2018 Game Dev Hackathon   2018
- Class XII School Subject Topper : Computer Science   2017
- 3rd Place : FLL Robotics Contest - International Finals   2012
- 1st Place : FLL Robotics Contest - National Finals (India)   2011

Extracurricular Activities

- Core Member - Quotient Quiz Club   2017–2021
  Participated in numerous quizzes across the country, representing PES University. Also conducted various quizzes for the institution, including designing the content and hosting the finals of the national level quiz, ConQuiztador.
- Vice President - PES Game Development Club (GDC)   2020–2021
  Volunteer for GDC's 24 hour hackathon. Organized various seminars and workshops.
- Volunteer - The Arundhati Foundation   2015–Current
  Content creation and volunteering for multiple editions of Safety Quest, a safety themed quiz to spread awareness. Involved in awareness campaigns, spot-fixing and road cleanup drives.