NAMAN DANGI

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EDUCATION

Georgia Institute of Technology, Atlanta GA   **August 2022 - Present**
Master's of Science in Computer Science

Mumbai University, Mumbai IN   **August 2018 - May 2022**
Bachelor's of Engineering in Computer Engineering   **CGPA: 9.29 / 10**

PUBLICATION

- Presented *"Performance analysis of different deep neural architectures for automated metastases detection of lymph node sections in hematoxylin & eosin-stained whole-slide images"* at the second Congress on Intelligent System organized by the Soft Computing Research Society & published in the **Springer Book Series**, *"Lecture Notes on Data Engineering & Communications Technologies"*. **DOI:** $10.1007/978\text{-}981\text{-}16\text{-}9113\text{-}3_6 2$
- Presented *"Filtering & preprocessing of hematoxylin & eosin-stained whole-slide images of lymph node sections"* at the International Conference on Advances in Computer Engineering & Communication Technology & accepted for publication in the **Scopus Indexed Journal**, *"Journal of Physics: Conference Series"*.

SKILLS

Languages: Java, C++, C, JavaScript, TypeScript, Python
Tools & Frameworks: HTML, CSS, SASS, jQuery, Node.js, React.js, Git, MongoDB, Mongoose, PostgreSQL, Sequelize, Redis, Puppeteer, Electron.js, Mocha, Chai, Valgrind, Figma, LaTeX, Unity, Blender, Numpy, Pandas, Tensorflow, Keras, Matplotlib, Seaborn
Relevant Coursework: Object Oriented Programming, Data Structures, Analysis of Algorithms, Advanced Algorithms, Database Management System, Operating System, Computer Networks, Compilers & System Programming, Machine Learning, Deep Learning & AI

WORK EXPERIENCE

Softsensor.ai | *Research Intern*   **August 2020 - March 2022**
- **Led a team of 10+ members** to develop an infrastructure for supporting the clinical trial of a drug **under approval from the FDA.**
- **Identified performance loss** in the use of standard compression algorithms like **JPEG2000** for histopathological images & worked on integrating custom compression algorithms for **better resource management**.
- Devised a mechanism for an efficient application of image processing filters to gigapixel whole-slide-images, **reducing the time required for filtering by about 45%**.
- Designed a **multi-user canvas instance** & resource sharing system over web sockets to support **real-time collaboration**.
- Developed a pipeline to support the ingestion & processing of **over 30,000** medical images directly over the web browser, where images ranged from a **few MBs to several GBs (5GB+)** in size.

peAR Technologies | *Software Engineer Intern*   **January 2019 - March 2019**
- Partnered with a 3D modeling artist to implement an AR-based application for peAR, an AI/VR-based startup envisioning Augmented-Reality in the Food & Hotel industry.
- Orchestrated a prototype of the application & architected the project's database using C#, Unity Game Engine, Blender & Firebase.

PROJECTS

Medical Imaging Portal
- A vendor-neutral, multimodal, bio-image analysis software to facilitate doctors, pathologists, & researchers in annotating, analyzing, & processing medical images in real-time for comparative studies & diagnosis.

Whole Slide Image preprocessing, segmentation, lymphocyte count & localization
- Researched & implemented **over 20** different image-thresholding techniques for preprocessing WSI patches. Trained Deep Learning Models for segmenting tumors, counting lymphocytes, & localizing contours, achieving **IOU scores over 90%**.

Non-Photorealistic Stylizing, Synthetic Image Generation, Denoising & Super Resolution
- Generated Synthetic images using adversarial networks & optimized content images with reference style images to obtain blended outputs, which look like the content images but are painted in the style of a reference image.
- Removed statistical interference & obtained higher resolution output images from lower resolution source images by leveraging efficient data encoding in an unsupervised manner.

Miscellaneous [github.com/namandangi]
- Over **40 projects** on GitHub, built for personal learning, coursework & competitions.

EXTRACURRICULARS

- **IBM:** Secured a **9.81 CGPA** in IBM's Advanced Technology Course (AI & ML track).
- **DJ Unicode:** Co-Mentored a team of **7 sophomores** in a semester-long project **over 5 months**.
- **Lines of Code:** Served as a guide for multiple hackathons consisting of **40+ teams** for 24 hours.
- **Internshala:** Won a **gold-level award** for creating awareness about various internships opportunities & training programs among students, while working as a student partner for Internshala.
- **Hour of Code:** Volunteered to teach programming & fundamentals of computer science to over **100+ junior** high students.