

NAMAN DANGI

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EDUCATION

Georgia Institute of Technology, Atlanta GA
Master's of Science in Computer Science

August 2022 - Present
(Expected December 2023)

Mumbai University, Mumbai IN
Bachelor's of Engineering in Computer Engineering

August 2018 - May 2022
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: 10.1007/978-981-16-9113-3_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.js, Chai.js, 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**.
- 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%**.
- 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.

Mach15 Edge Technologies | Full Stack Developer Intern

August 2019 - October 2019

- Teamed up with user interface developers to create a marketing & an e-commerce website for BandBaazar, a startup aimed at providing marketing tools & industry opportunities for emerging musicians, artists & bands.
- Constructed & administered the project's database, and handled server-client integration using **ES6, Node.js, React.js, PostgreSQL**.

peAR Technologies | Software Engineer Intern

January 2019 - March 2019

- Partnered with a 3D modeling artist to implement an AR-based application for peAR, an AR/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

Buffer Manager System

- Engineered a **thread-safe** buffer manager system that implements the **scan-resistant 2Q replacement** strategy & is capable of handling over **40,000 concurrent** page fix and unfix operations across **8 threads**.

vCPU Scheduler & Memory Manager

- Implemented a vCPU Scheduler to balance the pining of **8 VMs across 4 pCPUs** based on their utilization to reach a balanced load.
- Designed a Memory Manager to handle the **inflation and deflation of the balloon driver** across **4 VMs** based on the memory utilization of the host machine and guest machines in each cycle.

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%**.

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**.
- 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.