NAITIK SHAH

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EDUCATION

Oregon State University   *April 2024 – December 2025*
Master of Engineering in Computer Science
Coursework: Machine Learning, Computer Architecture, Scientific Visualization, Deep Learning, Advanced Computer Graphics.

University Of Mumbai   *July 2018 – May 2022*
Bachelor of Engineering in Computer Engineering
Coursework: Data Structure, Algorithms, Operating Systems, Computer Networks, Artificial Intelligence, Machine Learning, Software Engineering, Data Management System, Data Science and Big Data Analytics, Mobile Application Development.

SKILLS

Technical Skills: Python, Java, SQL, C, C++, JavaScript, HTML, CSS, Machine Learning, Deep Learning, NLP, XML, Git, Jira, JSON
Frameworks: Spring framework, Spring Boot, Angular, J2EE, JPA, PyTorch, Pandas, Hibernate, React, Node.js, NumPy, scikit
Database: MySQL,DB2, MongoDB
Soft Skills: Problem Solving, Adaptability, Communication, Teamwork, Mentoring

PROFESSIONAL EXPERIENCE

Student Software Developer, Oregon State University, Corvallis, USA   *December 2024 - Present*
- Working on **Salesforce CRM** solutions to streamline workflows and improve user engagement, utilizing **Apex and Lightning Web Components (LWC).**
- Learning to design, develop, and optimize Salesforce applications tailored to organizational needs.
- Building a foundational understanding of automation tools such as **workflows, process builders, and validation rules.**

Software Engineer, Hexaware Technologies Pvt. Ltd., Mumbai, India   *August 2022 – July 2023*
- Developed and maintained software applications for various clients using **Java, J2EE, and Spring framework**, achieving **95% code coverage** through comprehensive unit testing.
- Designed and executed responsive front-end components leveraging **HTML, CSS, JavaScript, and AngularJS**, resulting in a **20% improvement**.
- Integrated front-end with back-end services using **RESTful APIs**, ensuring seamless data flow and optimal user experience.
- Leveraged Java frameworks like **Spring Boot** and **Hibernate** for building scalable and efficient **server-side components**, reducing application response time by **30%.**

Software Developer Intern, Orno Infosys India, Mumbai, India   *October 2019 – September 2020*
- Volunteered in developing a **software application** that automated employee payrolls, standard business, management reporting and payment processing.
- Utilized knowledge and skills in developing web applications and user interface design, resulting in a **15% increase in user adoption.**
- Applied **Eclipse as the Integrated Development Environment (IDE)** for development and debugging.

PROJECTS

CRYO-EM VISUALIZATION ANALYSIS   *December 2025*
- Developed a Python script to preprocess **Cryo-EM 2D** projection images, converting PNG files into PLY geometry for visualization.
- Implemented the **Contour Line Visualization Method** using C++ and OpenGL, optimizing scalar field interpolation algorithms for efficiency.
- Built and tested the **Morse-Smale Segmentation Pipeline** in ParaView, leveraging topological data analysis techniques like **persistence homology** for accurate feature extraction.
- Designed and conducted performance evaluations, showcasing the comparative efficiency of visualization methods, with Morse-Smale achieving a computational time reduction of up to **95%.**

AUGMENTED REALITY BASED MENU APPLCATION   *January 2022*
- Designed and implemented an augmented reality-based application using **Unity Engine** and **Vuforia SDK**, enabling marker-based tracking to seamlessly integrate **3D virtual models** of food items into real-world environments for enhanced menu visualization.
- Published the project titled **"NAAN – AN AUGMENTED REALITY BASED MENU APPLICATION"** in **International Research Journal of Engineering and Technology**, demonstrating application's potential to revolutionize dining experience through advanced **AR integration** and **3D object rendering.** (Link)

FAKE NEWS DETECTION   *March 2021*
- Developed Utilizing **Python** and libraries such as **scikit-learn** and **NLTK** to develop **fake news detection system**.
- Employed **Passive Aggressive algorithm** to classify news articles as **real or fake**.
- Implemented **TF-IDF vectorization** to transform textual data into numerical features, capturing **importance of words** in documents while accounting for **frequency across the corpus**.

EXTRACURRICULAR ACTIVITIES

- Organized **technical workshops and events** as an active member of the **IEEE Student Branch**, fostering collaboration and innovation.
- Volunteered as a **mentor for undergraduate students**, providing guidance on coding and **data analysis projects.**