Rohith Ankalla

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PROFESSIONAL SUMMARY

Computer Science graduate with hands-on experience in software development, database systems, and frontend/UI engineering, complemented by a strong foundation in computer graphics and interactive visualization, and experienced in building Android applications, designing and implementing responsive web interfaces, and supporting real-world projects through industry collaboration and academic teaching roles.

EDUCATION

Master of Science in Computer Science **January 2024 - December 2025**

University of Massachusetts Boston | Boston, MA, USA | GPA: 3.6/4.0

Bachelor of Technology in Computer Science and Engineering **August 2019 - August 2023**

JNTUK, Kallam Haranadha Reddy Institute of Technology| Guntur, India | GPA: 2.7/4.

TECHNICAL SKILLS

Programming Languages: Java, Kotlin, JavaScript, Python, SQL, C, C++
Web Technologies: HTML, CSS, React
Databases: MySQL, Oracle
Operating Systems: Windows, Unix/Linux
Tools & Platforms: Android Studio, Git, Blender, Three.js, Figma, Adobe Illustrator, Photoshop, MS Office, Google Workspace.

EXPERIENCE

Frontend Developer & UI/UX Designer — GiwoTech Inc **September 2024 -Present | Boston, MA**

Industry Collaboration via CS682 (Software Engineering)

- Collaborated with a cross-functional team to redesign and implement a responsive company website using HTML, CSS, JavaScript, and React, improving usability and visual consistency.
- Led the UI/UX design and information architecture using Figma, defining color systems, typography, interaction flows, and page-level layouts.
- Designed the company's official logo and branding assets in Adobe Illustrator, incorporating domain-inspired visual elements and supporting light and dark themes.
- Continued working directly with the CEO after the course to iteratively enhance the website, adapting designs to evolving research-driven requirements.
- Developed 3D visual assets and exploratory web-based graphics using Blender and Three.js (experimental integration) to support interactive product representation.
- Demonstrated initiative by independently expanding technical skills in computer graphics and web visualization to meet emerging project needs beyond the initial course scope.

Graduate Teaching Assistant **August 2025 - December 2025**

Database Management Systems (CS 430 / CS 630) **University of Massachusetts Boston**

- Conducted hands-on lab sessions reinforcing database concepts such as SQL queries, normalization, indexing, and complex join operations.
- Graded approximately four major assignments for a class of ~30 students, ensuring consistent and fair evaluation in coordination with the course instructor.
- Provided detailed technical feedback to help students improve query logic, schema design, and overall database understanding.
- Assisted students with Oracle database usage on Unix-based servers, including environment setup, connectivity troubleshooting, and query execution.
- Supported students during office hours and one-on-one sessions, clarifying relational algebra, PL/SQL concepts, and database application fundamentals.
- Guided students in understanding database-driven application development, including basic JDBC integration with Java.

Freelance Graphic Designer — Punjab Cafe **April 2025 | Boston, MA**

- Redesigned the restaurant's brand identity by creating a custom logo that blends Punjabi cultural symbolism (Golden Temple) with the Boston skyline, reflecting both heritage and local presence.
- Collaborated directly with the owner and on-site management to gather evolving requirements, present design concepts, and iterate based on feedback.
- Delivered final logo assets using Adobe Illustrator, which were adopted across the restaurant's Toast POS system and internal branding.
- Initiated additional design work on updated menu layouts, demonstrating continued client trust and engagement.

Meme Content Senior Editor — Free Chaitanya & Parayana Badithulu **September 2017 - May 2019 | India**

- Joined the creative team as a content editor during high school by proactively reaching out and contributing original meme content.
- Played a key role in scaling the page from ~1,000 to over 150,000 followers, contributing to audience growth across Facebook and Instagram.
- Created and curated content focused on student life, humor, and satire, collaborating closely with editors and admins.
- Promoted to Senior Editor, supporting content planning, quality control, and team coordination.

PROJECTS

One Last Reckoning — Interactive 3D Narrative Game **September 2025 - December 2025**

CS460: Computer Graphics

- Designed and developed ONE LAST RECKONING, a browser-based interactive 3D narrative game using Three.js, combining storytelling, symbolism, and gameplay across a four-level progression.
- Implemented custom game mechanics per level, including memory-based interaction sequencing, raycasting-driven object inspection, grid-based logical dependencies, and physics-based object interaction.
- Built real-time 3D environments with custom GLSL shaders, dynamic lighting, reflections, and environmental effects such as rain and mirrored spaces.
- Developed first-person controls, camera systems, and interaction handling using pure JavaScript without external game engines or frameworks.
- Optimized performance using spatial hashing for collision detection, controlled reflection updates, and in-game FPS diagnostics.
- Architected modular level structure (level-wise JS files) enabling narrative branching, future expansion, and iterative development.

BookCricket **January 2025 - May 2025**

CS636: Database Application Development

- Developed BookCricket, a native Android game recreating the nostalgic paper-based cricket experience using Kotlin and Android Studio, implementing full gameplay flow including toss, innings, batting/bowling, and result logic.
- Designed and implemented custom UI/UX with hand-drawn buttons, panels, and icons; built responsive layouts using XML and structured navigation across multiple activities.
- Implemented SQLite-based local persistence to manage player profiles, match statistics, and leaderboards, supporting profile creation, editing, switching, and deletion.
- Built game logic with randomized scoring, guess-based OUT conditions, and overs-based progression, ensuring consistent state management across activities and sessions.

DiabetesCare **January 2024 - May 2024**

CS615: User Interface Design

- Collaborated in a four-member team to design and develop DiabetesCare, a web-based healthcare application focused on diabetes awareness, prevention, and self-assessment.
- Contributed across UI/UX design, frontend development, and content structuring, ensuring all team members were involved in end-to-end development.

- Designed and implemented responsive user interfaces using HTML and CSS, with a primary focus on usability, accessibility, and clean visual hierarchy.
- Developed interactive features using JavaScript, including a BMI calculator and a Type 2 Diabetes risk assessment tool for user self-evaluation.
- Curated and integrated informational content, including articles, news, and external resources related to diabetes management and awareness.
- Created UI/UX prototypes for user authentication flows (login and signup) and appointment booking features to demonstrate real-world healthcare workflows (non-functional, design-focused).
- Deployed the application using Vercel, enabling public access and cross-device testing to validate responsiveness and layout consistency.

Web Protection — Identifying Dangerous URLs **September 2022 - April 2023**

- Co-developed Web Protect, a machine-learning–based system to classify URLs as malicious or benign, addressing phishing, spam, and malware-related web threats.
- Designed and implemented a feature extraction pipeline to analyze URL-based lexical and behavioral characteristics for effective classification.
- Trained and evaluated Logistic Regression and Multinomial Naive Bayes models using labeled URL datasets, achieving ~96% testing accuracy with Logistic Regression.
- Compared model performance using confusion matrices, training/testing accuracy metrics, and false-positive analysis to determine the most effective classifier.
- Reduced dependence on static blacklists by leveraging supervised learning techniques, improving detection of newly generated and previously unseen malicious URLs.
- Collaborated with a multi-member team to structure the end-to-end ML workflow, including data preprocessing, model rendering, prediction, and evaluation.
- Documented the methodology, results, and analysis in a peer-reviewed journal publication, demonstrating research-oriented problem-solving and applied machine learning practice.

CERTIFICATIONS

- Foundations of User Experience (UX) Design **May 2023**
- UMass Boston Makerspace Studio Certified **September 2024**
- Data Structure and Algorithms using Java **July 2022 - October 2022**
- The Joy of Computing Using Python **July 2022 - October 2022**
- Python Programming **December 2023 - April 2024**