

Atharva Undire

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EDUCATION

Texas Tech University, Edward E. Whitacre Jr. College of Engineering

Bachelor of Science, Major in Computer Engineering

Minor in Computer Science, Robotics

- President's List: 2023-2025
- GPA: 3.968

Exp. Grad. 2027

Lubbock, TX, USA

Cambridge International Advanced Level, Dr. S. Radhakrishnan International School

Information Technology, Physics, Math, Chemistry

- Grades: A*, A, A, A

2022

Mumbai, India

PATENT

Single Stage to Orbit Rocket Engine

US Patent No. US 12173671 B2

WIPO Publication No. WO/2023/012559 (QR)

IPC: F02K, C23C, F02C

- A Rocket Engine that aims to solve the staging problem and aerospike cooling problem using an aerodynamically stable 'virtual aerospike,' enabling Single Stage To Orbit flight, thus reducing the likelihood of catastrophic in-flight failure during staging and lowering space travel costs significantly.

2021 -
Exp. 2041



WORK EXPERIENCE

Sigmoid Technologies - XR Full Body Tracking Software

Full-Stack Developer, Founder

- Engineered ultra-low-latency, high-bandwidth communication protocols to support multiple concurrent live video streams, ensuring high-redundancy data pipelines for scalable XR experiences.
- Architected low-cost Full Body Tracking solutions leveraging advanced Vision Language Models (VLMs), achieving ~98% accuracy (excluding edge case heavy occlusion) in real-time motion capture for consumer applications.
- Spearheaded strategic partnerships with influencers and community leaders for crowdfunding, positioning Sigmoid as a leader in accessible immersive tech.

June 2025 -
Aug 2025

Delaware

SuperIntro - Social Media App for Rapid Automated Networking

Software Intern, Full-Stack Developer

- Developed a cross-platform mobile app using React Native, enabling seamless networking experiences across iOS and Android with high compatibility.
- Optimized onboarding workflows, reducing user drop-off rates by ~15% and facilitating rapid adoption for 200+ initial users.
- Led a 3-person development team, implementing agile project management to accelerate app iteration cycles, enhancing feature delivery efficiency.
- Transformed complex Figma designs into production-ready code using JavaScript/React Native and Python, ensuring pixel-perfect UI and robust backend integration.

Nov 2024 -
Feb 2025

San
Francisco

HyperWater AI - AI-driven Software for Construction Industry Efficiency

AI Software Engineer, Full-Stack Developer

- Assisted in enhancing an AI tool for keyword extraction in construction documents, improving processing efficiency by ~30%.
- Helped architect a bidding network to connect 800+ contractors and suppliers, enhancing project visibility and collaboration.
- Developed an employee database, streamlining communication and achieving a faster project turnaround.
- Supported pre-seed investment discussions raising \$100k, showcasing growth potential and preparing for a \$1M seed round.
- Contributed to transforming countless Figma designs into production-ready code using JavaScript/Vue.js and Python/Django within a 30-developer team.

Oct 2024 -
June 2025

Dallas

RajéAI Industries - Consumer and Business-grade AI Applications

Director, Founder, Full-Stack Developer

- Established and orchestrated a robust corporate framework for crafting consumer-oriented applications, managing a 0 to 100 scale up.
- Created Talk2Note, an AI-enhanced note-taking and educational aid application, employing sophisticated algorithms for audio summarization, integrating community interaction functionalities, and designing an intuitive interface which boosted user study productivity. Directed marketing and pricing tactics to elevate product recognition by over 200%.

Dec 2022 -
Present

Mumbai &
Singapore

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- Headed the development of FileVile, a healthcare database application, incorporating AI for diagnostic analysis, ensuring compatibility on both Android and iOS, thereby markedly reducing the time needed for medical diagnoses.
 - Initiated unCentral, a dynamic multimedia social network where web-snippet content plays a central role by increasing intractability by over 3x, broadening its accessibility through deployment on iOS and Android.
 - Spearheaded Speil, a storytelling-focused social app, introducing collaborative features and launching on iOS.
 - Designed GuessRGB, a children's color guessing game, emphasizing intuitive gameplay for enhanced engagement.
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SKILLS

Software

I am a Full-Stack Developer with expertise in a wide range of programming languages and frameworks (more than ten years of experience). Proficient in both frontend and backend development, with a focus on creating scalable web applications and leveraging AI and machine learning algorithms for enhanced functionality.

Technical Skills:

- **Programming Languages and Dev Tools:** Python, Java, JavaScript, Verilog, Assembly, C, JSX, HTML, CSS, Docker
- **Frameworks:** React.js, React Native, Expo, Vue2, Vue3, Angular, p5.js
- **Backend Server Management Applications:** SQL, JSON and Vector Databases - AWS, Supabase, Digitalocean, Firebase, Zilliz
- **Robotics:** ESP-32, Arduino, Raspberry Pi, I2C, SPI, Sensor Fusion, Computer Vision
- **Applications:** Simulations (*Ansys CFD, LTSpice, ...*), 3D VFX//Design/Printing/CAD (*Fusion 360, Blender 3D, AutoCAD, ...*), Photo Editing and Design (*Photoshop, Lightroom, Gimp, Figma, ...*), Game Development (*Unity, Game Maker Studio 2, ...*), Music Production (*Logic Pro, CakeWalk, FL Studio, ...*), Video Editing (*Da Vinci Resolve, Final Cut Pro, ...*)

Projects:

- **AI, Hacking & Development:** Worked on cross-platform applications using *React.js, Python and React Native*, integrating transformer models for complex agentic workflows for things such as *stock price prediction* and *news sentiment analysis*. Developed a *trojan malware* as a red-team project that exploits certain vulnerabilities in Windows 10, gaining root privileges and installing a malicious Monero miner on the host machine for educational purposes only (white hat).
- **Robotics & Game Development:** Developed Raspberry Pi-based robots like a *fully-autonomous soccer robot (with custom PCBs and real-time vision logic)*. Arduino-based automation robots like a *3D-printed robotic arm, SONAR-based roomba* and ESP-32-based *Smart Home Automation Nodes*. Developed interactive games such as *GuessRGB, Snake*, and *PONG* using [p5.js](#).
- **Semiconductor Fabrication:** Working on developing homemade microchips using maskless stereolithography targeting ~100µm feature sizes with off-the-shelf components such as an mSLA printer and safe-to-use hydrofluoric acid precursors.

***All Projects: Visit www.atharvaraje.com (or scan QR code) to find a complete list of my projects.**

Community:

- Volunteered with the SPCA, providing support in cat fostering, enhancing adoption efforts for 40+ cats and promoting animal welfare.
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Languages (other than English)

**ACTFL Proficiency Scale Equivalents*

(Novice, Intermediate, Advanced, Superior, Distinguished)

- **Hindi:** Speaking: Distinguished, Listening: Distinguished, Reading: Advanced High, Writing: Advanced Mid
 - **Marathi:** Speaking: Distinguished, Listening: Distinguished, Reading: Advanced High, Writing: Advanced Mid
 - **Chinese (Mandarin):** Speaking: Novice High, Listening: Novice Mid, Reading: Novice High, Writing: Novice Low
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ADDITIONAL

Portfolio Website

To view the latest, detailed & additional information, projects and creative portfolio, please visit my portfolio website.

www.atharvaraje.com

References can be provided on request



Work Information (USA)

Current Visa Status: F-1 (Computer Engineering)

Eligible for CPT/OPT.

Citizenship: India.

I am able to work in the United states without a sponsorship right now on CPT/OPT.

Flexible to relocate anywhere, or work remotely/hybrid.
