

Yajat Narayan

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Education

University of Wisconsin–Madison

08/2022–12/2025

Bachelor of Science in Computer Science — Minor: Mathematics

Experience

Holos.io, Madison, WI

08/2025–12/2025

Software Developer - Unity, Swift, Xcode, VR Development

- Solved critical training gap where pilots couldn't practice on live aircraft by developing VR training modules for **\$15M** Air Force contract, enabling safe repetition of high-risk procedures and reducing equipment damage incidents.
- Engineered real-time 3D spatial replay system using Apple Vision Pro sensor data with Euclidean transformations on Unity mesh models, achieving sub-centimeter positional accuracy for motion capture and training analysis.
- Conducted user research with **15+** Air Force personnel in Agile sprints, translating operational requirements into technical specifications through iterative prototyping cycles, reducing design revision time by **40%**.

Siemens Industry Inc., Buffalo Grove, IL

05/2025–08/2025

Software Engineering Intern - GoLang, AWS, Backend Development

- Built secure data management microservices supporting ISO 27001 certification (audit passed), implementing compliant user data deletion and restoration workflows across DynamoDB handling **10,000+** enterprise clients.
- Improved deletion/restoration efficiency by **80%** by automating previously manual database operations, building scalable GoLang services to handle **100K+** data points per client with full audit logging.
- Architected decoupled CI/CD pipeline with Git version control, enabling auditable infrastructure changes and eliminating manual deployment steps while maintaining compliance with security controls.

Greeky, Remote

06/2024–08/2024

Frontend Developer - React, Docker, JavaScript

- Developed React components for Greek life platform serving **2000+** users, implementing lazy loading and code splitting that reduced page load time by **40%** (3.2s to 1.9s), significantly improving user experience.
- Containerized application with Docker and established CI/CD pipeline using GitHub Actions with automated testing, reducing deployment time from **45 to 8 minutes** while improving release reliability.

Codivate, Remote

06/2020–08/2021

Founder & Lead Instructor - Java, Education Technology

- Identified gap in accessible CS education for K-12 students during pandemic; launched coding startup, scaling to **10 tutors** and **50+ students** within 6 months while maintaining quality through standardized curriculum.
 - Tackled high dropout rates by redesigning curriculum around game development projects (Flappy Bird, Snake) instead of abstract exercises, increasing student retention by **30%**.
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Projects

UnoPass - Local-First Password Manager — TypeScript, Node.js, React, Chrome Extension API

- Built privacy-focused alternative to cloud password managers after LastPass breaches exposed user vaults; implemented AES-256-GCM encryption, scrypt KDF (N=65,536), and HMAC-SHA256 verification achieving OWASP compliance.
- Eliminated friction of manual password entry by building Chrome extension with autofill, protected by rate limiting (**5 attempts/15min**) and auto-lock sessions to prevent unauthorized access.
- Prevented data loss from crashes/corruption through atomic file operations; vault remains encrypted at rest with zero plaintext exposure, decrypting only in memory during active sessions.

Handwritten Digit Recognition from Scratch — Python, NumPy, Flask, JavaScript, HTML5 Canvas

- Built neural network from scratch using only NumPy (no TensorFlow/PyTorch) to deeply understand ML fundamentals, implementing backpropagation and gradient descent from mathematical first principles.
 - Created full-stack demo with HTML5 Canvas for real-time drawing and Flask REST API for inference, achieving sub-second predictions on **400-dimensional** feature vectors.
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Technical Skills

Languages: Python, Java, GoLang, C, JavaScript, TypeScript, Swift, SQL

Frameworks: React, iOS, Node.js, Express, Flask, PyTorch, Unity **Databases:** DynamoDB, PostgreSQL, MongoDB

DevOps & Cloud: AWS (Lambda, S3, EC2), Docker, Git, CI/CD, Linux, Agile/Scrum, Testing, Debugging