Uday Kiranbhai Patel

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Education

Arizona State University Tempe, AZ
B.S. in Computer Science | GPA: 3.55 Expected December 2027

Technical Skills

Languages: Python, Java, JavaScript/TypeScript, C/C++, C#, SQL
Frameworks: React, Node.js, Express, Flask, Django, Spring Boot, REST APIs
Databases: PostgreSQL, MySQL, MongoDB, DynamoDB, Redis
Cloud & Tools: AWS (EC2, Lambda, S3, RDS), Docker, Kubernetes, Git, GitHub, Linux, Bash, CI/CD
Additional: HTML, CSS, Pandas, NumPy, Jira, Confluence

Professional Experience

XR Technical Coordinator **Aug 2024 – Present**
Dreamscape Learn, Arizona State University *Tempe, AZ*
Promoted twice: XR Technical Specialist → XR Technical Supervisor → XR Technical Coordinator

- Lead and coordinate technical operations with **40+ staff**, troubleshooting VR systems and supporting instruction for **7,000+ ASU students weekly**.
- Independently engineered an **AI-powered monitoring and troubleshooting system** using Python, RAG, and Slack integration, with a feedback-driven, self-updating knowledge base to support technical operations.
- Collaborated on the design and pre-release testing of **ASU's AME 494: Designing for Dreamscape!**, a university course focused on Unity-based interactive software development.

Software Developer **Jan 2022 – Dec 2023**
Micro Laser *India*

- Developed centralized control and automation software using C# and Visual Basic for diamond laser-cutting machines, reducing operator requirements from **25 to 4** through automated workflows.
- Designed and built a company-wide inventory and production management system using C# and SQL, integrating client records, operational data, and production tracking to centralize business workflows.

Projects

VectorEngine – Interactive Vector Field Simulation Engine [GitHub] *Python, NumPy, PyQt5*

- Built a real-time 2D vector-field simulation engine using particle-based numerical modeling and dynamic visualization.
- Developed an interactive GUI with live parameter controls, reusable presets, and custom file serialization for reproducible experiments.

Chess Engine Development [GitHub] *Algorithms, Data Structures*

- Implemented a chess engine with legal-move generation, board evaluation heuristics, and alpha-beta pruning for game-tree search.
- Improved search efficiency using pruning techniques and memory-conscious data structures.

Leadership & Involvement

Marketing Team Lead | sunhacks, ASU *Jul 2026 – Present*

- Lead marketing initiatives and coordinate outreach campaigns for ASU's flagship student hackathon.

Film Director | LKSEC *Jan 2019 – Dec 2022*

- Directed award-winning film productions, managing multidisciplinary teams, budgets, and production schedules.

Certifications

Google Cybersecurity Specialization | Stanford Statistics | HackerRank Python & SQL