

Shaunak Khedekar

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Education

University of Illinois Chicago, Chicago, IL, USA

Master of Science: Computer Science, Expected May 2027

Cumulative GPA: 4.0/4.0

Maharashtra Institute of Technology World Peace University, Pune, India

Bachelor of Technology: Computer Science and Engineering, June 2025

Cumulative GPA: 8.49/10.00

Experience

Centre for Development of Advanced Computing, Pune, India

Applied AI Intern, July 2024 – December 2024

- Engineered an AI-driven judicial case management system leveraging LLMs and speech recognition, cutting document review time by 40% through automated case categorization and summarization
- Designed and deployed a document-to-AI assistant pipeline supporting PDFs, CSVs, and images, enabling context-aware Q&A and achieving 95% query accuracy across 1000+ test cases
- Implemented a secure authentication service, increasing system reliability and reducing login failures by 30%
- Streamlined multilingual audio-to-text pipelines by processing 40,000+ audio clips, accelerating model evaluation cycles by 25%

University of Illinois Chicago, Chicago, IL, USA

Graduate Hourly – Course Builder, College of Business, May 2026 – Present

- Develop and maintain digital course content on Canvas LMS, applying technical skills in content architecture, metadata management, and platform configuration
- Remediate digital course materials for accessibility compliance (WCAG 2.1 AA, Section 508), applying systematic evaluation and documentation workflows to ensure inclusive design
- Collaborate with faculty and instructional design staff to migrate and optimize course content, leveraging analytical skills to identify and resolve technical issues across platforms including Panopto and Echo360

Projects

AI-Powered Automated Hydroponic System: | ExpressJS | Firebase | MQTT | Python | NextJS (Team Member)(April 2025) [Link](#)

- Developed a smart hydroponic system integrating real-time environmental monitoring and systemized nutrient management
- Collected sensor data (pH, TDS, temperature, light), transmitting over MQTT to an ExpressJS backend with Firebase
- Engineered a CNN model for early disease detection from plant images, improving detection accuracy by 15% and accelerated manual inspection processes by 40%
- Built a NextJS dashboard for real-time monitoring and control, boosting reliability by 30% and cutting response time by 25%

Making AI Models More Transparent and Explainable using XAI: | Python (Independent Project) (March 2024)

- Designed and executed a rigorous evaluation framework comparing LIME and SHAP for interpreting complex bioinformatics models, leading to a refined model interpretation pipeline used by 10+ researchers
- Integrated a full ML workflow and audited explanations for fidelity and robustness on biomedical datasets
- Demonstrated how SHAP aggregates into global insights while LIME offers instance-level rationales, highlighting caveats with feature collinearity and model dependence

Custom PC Building E-commerce Platform: | MySQL | React | Node.js | Express | HTML | CSS (Team Member)(October 2024)

- Built a customizable PC building platform allowing users to select components based on budget and use case, improving customer satisfaction by 25%
- Coded predictive pricing models using historical sales and market trends, improving forecast accuracy by 45% during project analysis and simulation
- Enhanced platform performance and usability through responsive web design and efficient backend APIs

Activities

Athlete (2017 - Present)

- Represented school and college in 15+ tournaments, showcasing teamwork and competitiveness

Ninox, Event Head (2022 - 2024)

- Led 20+ members to organize 10+ events on sustainability and wildlife, engaging 300+ participants

Skills

- Python, SQL, R, Excel (Advanced), Power BI/Tableau, Machine Learning, Statistical Modeling, Hypothesis Testing (ANOVA, Chi-Squared), Regression Analysis, Data Visualization, Reproducible Workflows (Git)