AI Developer - Hybrid/Remote

higheredjobs.com/search/details.cfm

AI Developer - Hybrid/Remote

AITS Admin

Sponsorship for Work authorization is not available for this position.

Job Summary
The AI Developer within Administrative Information Technology Services (AITS) designs, builds, and deploys AI-enabled applications by translating functional requirements into technical solutions and selecting appropriate AI approaches. This role develops and integrates AI services across cloud and on-premises environments, creating secure, scalable code and backend services that align with system-wide privacy, security, and accessibility standards. The AI Developer configures monitoring of AI solutions, troubleshoots production issues, and supports ongoing operations, upgrades, and lifecycle management of AI systems. The position works closely with data, security, compliance, and business teams to deliver high-quality, responsible AI solutions and provides technical guidance to users and stakeholders. The role also stays current with emerging technologies and contributes to continuous improvement across AI practices and solutions.
Duties & Responsibilities

- 1. Business & Stakeholder Engagement a. Assist the analyst in translating functional business problems into technical requirements for AI solutions. b. Help assess whether use cases are best solved with prompt engineering, no /low code tools, RAG (retrieval augmented generation), or custom development. c. Communicate progress, risks, and results to both technical and non-technical stakeholders. d. Provide guidance on best practices for AI use, prompt engineering, and automation. e. Assist in determining the level of ROI and development complexity to assess viability and priority of moving forward with a given solution. f. Collaborate with security, privacy, accessibility, and compliance teams to ensure solutions adhere to university system policies (e.g., FERPA, HIPAA, data classification, accessibility standards).

- 2. AI Development and Engineering a. Design, prototype, and develop AI-enabled applications and services using current and emerging platforms, including but not limited to: Azure AI services, Copilot Studio and related tools for building chatbots, agents, and automated workflows, on-premises AI/LLM servers and open-source models, including opportunities for fine-tuning and custom model development where appropriate, and other approved AI tools and services as needed. b. Build data pipelines for model training, fine-tuning, evaluation, and monitoring. c. Develop custom algorithms, prompts, and inference workflows tailored to business requirements. d. Integrate AI services and APIs into existing systems and applications. e. Write clean, efficient, maintainable code in languages such as Python, JavaScript/TypeScript, or Java. f. Develop with sound security practices and techniques. g. Develop with sound accessibility practices and techniques. h. Build scalable and secure backend services, microservices, or APIs to support AI solutions. i. Implement automated testing where possible, and use version control, CI/CD, and performance optimization practices. j. Perform unit testing and prepare solutions for user acceptance testing. k. Create documentation for architecture, design patterns, development processes, and support purposes.
- 3. AI Solution Deployment & Ops a. Deploy AI components and applications to cloud environments (Azure, AWS, GCP) and to on-prem AI servers as needed. b. Configure monitoring, logging, and basic analytics for AI endpoints, including usage, performance, and error tracking. c. Troubleshoot production issues and optimize reliability, latency, and cost of AI services. d. Assist in maintaining model and endpoint lifecycles (e.g., upgrading models, rotating keys, updating configurations).
- 4. Data Stewardship a. Partner with data engineers, data scientists, analysts, and business teams to understand data sources, quality, structure, and use-case requirements. b. Assist in data preprocessing, labeling, feature engineering, and evaluation. c. Ensure compliance with data privacy, security, and governance standards.
- 5. Support a. Once relevant training and experience have been obtained, support production activities associated with AI solutions. This may require evening or weekend hours, depending on the business criticality of the solution. b. Provide support for testing, configuration, and maintenance needed for scheduled upgrades and outages. c. Provide technical guidance and support to users, analysts, and power users of AI tools; collect feedback for continuous improvement.
- 6. Other Duties a. Stay current with emerging AI capabilities, tools, and best practices. b. Perform other duties as assigned that are appropriate for an AI Developer.

Minimum Qualifications

1. High school diploma or equivalent.

2. Any one or any combination totaling two (2) years (24 months) from the following categories:

a. College coursework which includes Information Technology (IT), IT Management, Programming, IT systems, or a closely related discipline, as measured by the following conversion table or its proportional equivalent: 30 semester hours equals one (1) year (12 months), Associate's Degree (60 semester hours) equals eighteen months (18 months), 90 semester hours equals two (2) years (24 months), Bachelor's Degree (120 semester hours) equals three (3) years (36 months)

b. Work experience in IT-related functions, such as hardware/software support, programming, network design, network engineering, IT systems integration, or closely related field.

Preferred Qualifications

Preferred:

1. Bachelor's degree in Computer Science, Engineering, Data Science, or related field (or equivalent experience).

2. 3+ years of professional software development experience.

3. Experience building or integrating with web APIs (REST/JSON) and working with common data formats.

4. Experience with other cloud AI platforms and services (AWS Bedrock, AWS SageMaker, Google Vertex AI, Google AI Studio).

5. Experience working with LLM serving and deployment frameworks such as Ollama or NVIDIA NIM.

6. Experience building LLM orchestration or RAG workflows using LangChain (or similar frameworks).

7. Experience fine-tuning or deploying LLMs or generative AI models.

8. Experience developing web front-end user interfaces using HTML, CSS, and JavaScript, with at least one modern framework (e.g., React, Angular, or Vue).

9. Experience designing and implementing accessible user interfaces.

10. Experience designing and deploying microservices and containerized applications (e.g., Docker, Kubernetes).

11. Hands-on experience with Azure for application deployment, scripting, or automation, including practical use of Azure AI Foundry/Azure AI Studio for working with AI services and model deployments.

Knowledge, Skills and Abilities

- Strong programming skills in Python and at least one additional language.
- Excellent verbal and written communication skills and the ability to work effectively with both technical and non-technical stakeholders.
- Strong project management, analysis, testing, and research skills.
- Strong coding and debugging skills.
- Ability to quickly learn new technology.
- Demonstrated ability to approach problems creatively and propose innovative, practical solutions.
- Demonstrated ability to manage and prioritize multiple tasks and to work with shifting priorities and schedules.
- Working knowledge of modern AI/LLM-based solutions, including:
  a. Prompt engineering and chat-style interactions.
  b. Use of embeddings and vector or semantic search to ground model responses.
  c. Designing and implementing chatbots, agents, or AI-assisted automations.
  d. Basic understanding of model training, fine-tuning, and evaluation workflows.
- Hands-on experience with AI/ML frameworks (e.g., PyTorch, TensorFlow, scikit-learn).
- Solid understanding of data structures and algorithms.
- Knowledge of AI governance, model evaluation, and responsible AI principles.
- Familiarity with University of Illinois systems and services.
- Technical knowledge working with ERP systems.
- Familiarity with source control and collaboration tools (e.g., Git, GitHub, GitHub Copilot or similar AI coding assistants).
- Demonstrated use of software engineering best practices.
- Understanding of data privacy and information security principles, with the ability to design solutions that protect sensitive and regulated data.

Appointment Information

This is a 100% full-time Civil Service 5031 - Information Technology Technical Associate position, appointed on a 12-month basis. The expected start date is as soon as possible after 1/5/2026. The budgeted salary range for the position is $80,000 to $90,000. Salary is competitive and commensurate with qualifications and experience, while also considering internal equity. Sponsorship for Work authorization is not available for this position.

System Office jobs such as this one are not eligible for the Referral Program.

For more information on Civil Service classifications, please visit the SUCSS web site at https://www.sucss.illinois.gov/pages/classspec/default.aspx.

Application Procedures & Deadline Information

Applications must be received by 6:00 pm (Central Time) on Sunday, January 18th, 2026. Apply for this position using the Apply Now button at the top or bottom of this posting. In order to be considered as a transfer candidate, you must apply for this position. Applications not submitted through https://jobs.illinois.edu will not be considered. If required by the position, transcripts or other documentation of credentials are to be provided no later than the first day of employment. For further information about this specific position, please contact Bree Smith at cbsmith@uillinois.edu. For questions regarding the application process, please contact 217-333-2137.

At the University of Illinois Urbana-Champaign - the state's flagship public university and one of the world's leading research institutions - **every staff member helps shape what's next**. Founded in 1867, Illinois is home to a vibrant community of 59,000 students from all 50 states and 129 countries, supported by 15 colleges and instructional units, more than 20 research institutes, and one of the most comprehensive student service ecosystems in the nation. Whether you're empowering first-generation students, fueling breakthrough innovation, or strengthening communities across Illinois and beyond, your work here has a far-reaching and deeply meaningful impact. The university offers a highly competitive benefits package designed to support your well-being, growth, and financial security. Join a top 10 public university that has launched over 330 startups and continues to redefine excellence - where the Illinois Value Proposition ensures that your contributions are recognized, your potential is nurtured, and your career can thrive.

Champaign-Urbana

Artificial Intelligence (AI) tools may be used in some portions of the candidate review process for this position; however, all employment decisions will be made by a person.

This position is intended to be eligible for benefits. This includes Health, Dental, Vision, Life Insurance, a Retirement Plan, Paid time Off, and Tuition waivers for employees and dependents.

The University of Illinois System is an equal opportunity employer, including but not limited to disability and/or veteran status, and complies with all applicable state and federal employment mandates. Please visit Required Employment Notices and Posters to view our non-discrimination statement and find additional information about required background checks, sexual harassment/misconduct disclosures, and employment eligibility review through E-Verify.

Applicants with disabilities are encouraged to apply and may request a reasonable accommodation under the Americans with Disabilities Act (2008) to complete the application and/or interview process. Accommodations may also be requested on the basis of pregnancy, childbirth, and related conditions, or religion. Requests may be submitted through

the reasonable accommodations portal, or by contacting the Accessibility & Accommodations Division of the Office for Access and Equity at 217-333-0885, or by emailing accessibility@illinois.edu.

Requisition ID: 1034478

Job Category: Technical

Apply at:https://jobs.illinois.edu
The University of Illinois is an Equal Opportunity/Affirmative Action Employer. The administration, faculty and staff embrace diversity and are committed to attracting qualified candidates who also embrace and value diversity and inclusivity.