CALS- Applications Developer II- iMapInvasives Full Stack Developer- Agritech

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Applications Developer II- iMapInvasives Full Stack Developer

The Opportunity

As a university founded to be a place where "...any person can find instruction in any study," inclusion and belonging are at the core of our values and mission. We strive to be a welcoming, caring, healthy, and equitable community where students, faculty, and staff with different backgrounds, perspectives, abilities, and experiences can learn, innovate, and work in an environment of respect, and feel empowered to engage in any community conversation. As a member of the Cornell University community, it is important to recognize our shared responsibility to each other to cultivate a culture of inclusion for all. Cornell Core values

As an individual contributor you will model and support a culture of inclusion, belonging, and wellbeing and continually seek to understand how your role, behaviors, and actions impact the success of this culture.

While position responsibilities vary greatly, the Skills for Success and Leadership Skills for Success are foundational to what is expected of every employee and leader working at Cornell. These skills are essential for individual and organizational success. Staff Skills for Success; Leadership Skills for Success

About the College

The College of Agriculture and Life Sciences (CALS) is a pioneer of purpose-driven science and Cornell University's second largest college. We work across disciplines to tackle the challenges of our time through world-renowned research, education, and outreach. The questions we probe and the answers we seek focus on three overlapping concerns: We believe that achieving next-generation scientific breakthroughs requires an understanding of the world's complex, interlocking systems. We believe that access to nutritious food and a healthy environment is a fundamental human right. We believe that ensuring a prosperous global future depends on the ability to support local people and communities everywhere. By working in and across multiple scientific areas, CALS can address challenges and opportunities of the greatest relevance, here in New York, across the nation, and around the world.

The New York State Integrated Pest Management Program (NYSIPM), branded as Cornell Integrated Pest Management (Cornell IPM; https://cals.cornell.edu/integrated-pest-management), is housed at Cornell AgriTech and is a translational research program of the Cornell University College of Agriculture and Life Sciences (CALS). Cornell is the Land Grant University of New York State and is charged with advancing the lives and livelihoods of NYS residents through teaching, research, and public service. Cornell IPM leads research initiatives and provides research-based educational outreach in agriculture and communities throughout the region to achieve the land grant mission. Cornell IPM is comprised of 36 faculty and staff, physically located at Cornell AgriTech, Geneva, Ithaca, and elsewhere in the state, with expertise spanning education, applied science, research, and development of analytical decision support tools.

iMapInvasives (https://www.imapinvasives.org/) is an online mapping and data platform used to track and manage invasive species. Users report sightings or treatments, and conservation experts/volunteers monitor where invasive species are spreading. The core technical components for iMapInvasives include PostgreSQL Database, ArcGIS server, Java web application, and cloud hosting through AWS for the back end, and, for the front-end, a combination of vanilla JavaScript, React, and the ArcGIS API for JavaScript. In these efforts, Cornell IPM works directly with the New York State Department of Environmental Conservation (NYSDEC) and by extension in close collaboration with the New York Natural Heritage Program (NYNHP), a joint entity of the State University of New York's College of Environmental Science and Forestry and NYSDEC. Together, Cornell IPM and NYNHP jointly administer the iMapInvasives technical platform. Cornell IPM manages all facets of technical development, management, and curation of online and digital services in close consultation with NYNHP and key state/provincial partners across the United States and Canada.

The position is located within the department of Cornell Integrated Pest Management (IPM).

The Application Programmer II will be responsible for the development, and maintenance of, software applications that support the iMapInvasives platform and digital tools within the organization, with direct oversight from the iMapInvasives technical project manager. This role requires a balanced focus on both front-end and back-end development, with an emphasis on writing clean, maintainable code, troubleshooting bugs, and delivering user-centered features. The developer will also ensure that the platform operates reliably and securely, adhering to best practices for system performance, cloud infrastructure, and data protection.

As an Application Programmer II, you will contribute to technical planning, system documentation, and integration of external data systems and services. They will collaborate closely with project team members, from different organizations, by partnering with the iMapInvasives technical project manager to support collective goals. The role also includes ongoing responsibilities such as attending team meetings, participating in professional development activities, and supporting platform accessibility and interoperability efforts. The position is designed to support both current system needs and longer-term modernization strategies.

While position responsibilities vary, every member of our community is expected to foster a culture of belonging and a healthy work environment by communicating across differences; being cooperative, collaborative, open, and welcoming; showing respect, compassion, and empathy; engaging and supporting others regardless of background or perspective; speaking up when others are being excluded or treated inappropriately; and supporting work/life integration of oneself and others.

This successful candidate will work independently on a daily basis, but will strategize, plan and troubleshoot in close collaboration with the project manager and Cornell IPM Digital Team, as well as key members of NYNHP and NYSDEC on a regular basis asynchronously and occasional program-wide in person meetings held by Cornell IPM.

This is full-time position at 100% FTE. This is a one-year term appointment that is contingent upon available work, funding, and performance.

This position is eligible for a hybrid work arrangement. Employees typically perform this role remotely 2 days per week and on-site 3 days per week. The university reserves the right to modify, suspend, revoke, or terminate the hybrid work arrangement at any time.

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Relocation assistance will not be provided for this position.

What We Need

- Bachelor's degree and up to 2 years relevant experience or equivalent combination in computer science, software engineering, or closely related discipline; or proven on-the-job training in software or application development.
- Two years of full stack application development maintenance experience with at least one object-oriented programming language.
- Understanding of database-driven application design in PostgreSQL (or similar relational database software) and working SQL proficiency.
- Proven ability to work with spatial data web applications.
- Working knowledge of geospatial concepts, terminology, and functions.
- Applications security and data protection best practices.
- Strong written and verbal communication skills to advance multi-organizational conversation and projects.
- Effective debugging, troubleshooting and problem-solving skills.
- Commitment to accessibility and inclusive design principles.
- A willingness to learn and adapt to evolving technologies.
- Ability to cultivate and develop inclusive working relationships with students, faculty, staff, and community members.
- Experience working directly with people from various socioeconomic backgrounds.
- Experience incorporating the perspectives of multiple communities.
- Ability to cultivate and develop inclusive working relationships with students, faculty, staff, and community members.

Position Competencies/Skills

- Systems thinking
- Analytical reasoning
- Attention to detail

- Collaboration and communication
- Adaptability
- Technical documentation and knowledge sharing
- Security and privacy awareness

If you have all those things, great! We have a few more things that we would prefer you to have, but it's ok if you don't.

- MS MCS degree in computer science, software engineering, data science, or related field.
- Demonstrated proficiency with one or more of the following programming languages: Java, JavaScript, Python.
- Demonstrated proficiency with one or more of the following frameworks: React, Spring, Hibernate.
- Understanding of cloud-based infrastructure, system administration fundamentals, and deployment practices.
- Experience with Esri GIS environment (including ArcGIS Enterprise, ArcGIS Online, and ArcGIS Pro) or equivalent open-source geospatial software.
- Deployment experience with machine learning and AI cloud-based systems.
- Authentication and role-based access control systems.
- CI/CD pipelines and deployment workflows.
- System monitoring and logging in production environments.
- Machine learning methodologies.
- Experience with environmental or biodiversity data.
- Knowledge of digital accessibility standards and inclusive design.

Rewards and Benefits

Our benefits programs include comprehensive health care options, generous retirement contributions, access to wellness programs, and employee discounts with local and national retail brands. We invite you to follow this link to get more information about our benefits: Understand Your Benefits | Working at Cornell.

Our leave provisions include health and personal leave, three weeks of vacation and 13 holidays: Martin Luther King, Jr. Day, Memorial Day, Juneteenth, Independence Day, Labor Day, Thanksgiving and the day after, and an end of the year winter break from December 25-January 1. To offer greater flexibility for observing faiths and traditions we also offer two additional floating holidays. Learn more about our generous leave provisions: Holiday and Accrued Time Off | Working at Cornell

Cornell's impressive educational benefits include tuition-free Extramural Study and Employee Degree Program, tuition aid for external education, and Cornell Children's Tuition Assistance Program. Learn more about our extensive educational benefits: Education Benefits | Working at Cornell

Follow this link to learn more about the Total Rewards of Working at Cornell:

Visa sponsorship is not available for this position.

Cornell is an equal opportunity employer. For more information, visit hr.cornell.edu/eeo.

University Job Title:

Applications Developer II
Job Family:

Information Technology
Level:

E
Pay Rate Type:

Salary
Pay Range:

$73,402.00 - $85,305.00
Remote Option Availability:

Hybrid
Company:

Contract College
Contact Name:

J'Frances White
Contact Email:

jmw572@cornell.edu
Job Titles and Pay Ranges:

Non-Union Positions

Noted pay ranges reflect the potential pay opportunity for each job profile. The hiring rate of pay for the successful candidate will be determined considering the following criteria:

- Prior relevant work or industry experience
- Education level to the extent education is relevant to the position
- Unique applicable skills
- Academic Discipline

To learn more about Cornell's non-union staff job titles and pay ranges, see Career Navigator.

Union Positions

The hiring rate of pay for the successful candidate will be determined in accordance with the rates in the respective collective bargaining agreement. To learn more about Cornell's union wages, see Union Pay Rates.

Current Employees:

If you currently work at Cornell University, please exit this website and log in to Workday using your Net ID and password. Select the Career icon on your **Home** dashboard to view jobs at Cornell.

Online Submission Guidelines:

Most positions at Cornell will require you to apply online and submit both a resume/CV and cover letter. You can upload documents either by "dragging and dropping" them into the dropbox or by using the "upload" icon on the application page. For more detailed instructions on how to apply to a job at Cornell, visit How We Hire on the HR website.

Employment Assistance:

For general questions about the position or the application process, please contact the Recruiter listed in the job posting or email mycareer@cornell.edu.

If you require an accommodation for a disability in order to complete an employment application or to participate in the recruiting process, you are encouraged to contact Cornell Office of Civil Rights at voice (607) 255-2242, or email at accommodations@cornell.edu.

Applicants that do not have internet access are encouraged to visit your local library, or local Department of Labor. You may also request an appointment to use a dedicated workstation in the Office of Talent Attraction and Recruitment, at the Ithaca campus, by emailing mycareer@cornell.edu.

Notice to Applicants:

Please read the required Notice to Applicants statement by **clicking here**. This notice contains important information about applying for a position at Cornell as well as some of your rights and responsibilities as an applicant.

EEO Statement:

Cornell welcomes students, faculty, and staff with diverse backgrounds from across the globe to pursue world-class education and career opportunities, to further the founding principle of "... any person ... any study." No person shall be denied employment on the basis of any legally protected status or subjected to prohibited discrimination involving, but not limited to, such factors as race, ethnic or national origin, citizenship and immigration status, color, sex, pregnancy or pregnancy-related conditions, age, creed, religion, actual or perceived disability (including persons associated with such a person), arrest and/or conviction record, military or veteran status, sexual orientation, gender expression and/or identity, an individual's genetic information, domestic violence victim status, familial status, marital status, or any other characteristic protected by applicable federal, state, or local law.

Cornell University embraces diversity in its workforce and seeks job candidates who will contribute to a climate that supports students, faculty, and staff of all identities and backgrounds. We hire based on merit, and encourage people from historically underrepresented and/or marginalized identities to apply. Consistent with federal law, Cornell engages in affirmative action in employment for qualified protected veterans as defined in the Vietnam Era Veterans' Readjustment Assistance Act (VEVRAA) and qualified individuals with disabilities under Section 503 of the Rehabilitation Act. We also recognize a lawful preference in employment practices for Native Americans living on or near Indian reservations in accordance with applicable law.

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Cornell University is an equal opportunity, affirmative action educator and employer.