

Job Description

Job Title:	Systems Developer
Department:	Registrar's Office
Reports To:	Director, Systems, Technology & Analytics
Jobs Reporting:	None
Salary Grade:	USG 10
Effective Date:	October 2022

Primary Purpose

The Registrar's Office (RO) is involved in all aspects of academic life, including marketing for undergraduate student recruitment and admissions, enrolment, examinations, development and application of academic policies, and convocation. This position supports the systems and applications for these activities and drives continuous improvement through systems development projects. The Systems Developer is responsible for developing, administering, managing, and continually enhancing the Registrar's Office's internal web-based software development activities infrastructure and integrations (e.g., website, CRM, business automation activities, and other marketing software).

Reporting to the Director, Systems, Technology & Analytics, and in collaboration with colleagues in the Registrar's Office, campus partners and IST, the Systems Developer is directly responsible for the secure software development life cycle of multiple systems. There is a focus in this role on the vendor purchased and custom developed solutions within the Marketing and Undergrad Recruitment portfolio of work (although it is not the only portfolio of work supported).

The responsibilities of this role encompass a range of areas that include:

- Developing and supporting optimal digital marketing infrastructure solutions for the business' needs of the Registrar's Office
- Managing multiple varied application technology stacks at various stages of their lifecycles
- Change management and documentation
- Tier-3 support of production systems, including leadership of technical upgrades and advanced troubleshooting of production issues

Key Accountabilities

Development and Management of Digital Infrastructure and Systems

- Manages the implementation, operation, and enhancements of digital marketing infrastructure (e.g., databases, software, CRM, website infrastructure, and hardware) throughout their entire lifecycle.
- Advises, implements, documents, and supports best fit technical solutions for Registrar's Office
- Administers and supports all technical activities related to the undergraduate recruitment lead management lifecycle, including CRM solution, customizations, and integrations to adjacent and related solutions (e.g., lead capture software, email campaign software).
- Ensures appropriate infrastructure exists for application development and production work.
- Ensures appropriate infrastructure exists for development and production databases.
- Database system administration including installation, tuning, performance monitoring, and upgrading.

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Ensures information systems data integrity within departmental infrastructure.

- Liaise with the central IST Drupal web development team in the planning and execution of University-wide web development projects, and ensure development projects in the positions scope adhere to recommended security and accessibility standards.
- Ensures web infrastructure complies with established government and institutional regulations, security and accessibility standards and best practices.
- Responsible for maintaining, evaluating, and upgrading software that is not standard (e.g., Adobe Creative Suite).
- Implements appropriate technical solutions and support for on-campus and off-campus events (e.g., Ontario Universities' Fair, open houses, influencer events, etc.).

Collaboration, Advising, and Consultation

- Works closely with Registrar Office colleagues to advise, support, and train the team on new and existing systems and software.
- Builds partnerships within the RO and Faculty Support Units to integrate systems, data, and technology.
- Collaborates with colleagues to ensure the department's websites are effective, innovative, attractive, user-friendly, and integrated with the Registrar's Office marketing strategies.
- Consults with IST's Information and Integration Management personnel with respect to all new and existing systems and participates in security audits and standards reviews conducted by IST.
- Advises stakeholders on technical solutions for supporting prospective undergraduate marketing strategies and other business needs as they arise.

Understands and Applies Current, Relevant Market Research and Institutional Knowledge

- Understands current marketing trends and systems development best-practices in higher- education and the broader industry.
- Monitors emerging technologies and systems employed by Waterloo's competitors and the private sector and provides appropriate advice and recommendations.
- Understands the role of research in the office's evidence-based strategies, and collaborates with the Marketing Insights Specialist, to establish research objectives and create data analysis solutions to inform decision-making, strategy development, and budget; to determine the optimal methods of evaluating the effectiveness of the strategies for which they are responsible; and to ascertain and recommend the most effective enhancements.

Documentation, Training and Change Management

- Maintains clear, consistent, detailed documentation and disaster-recovery standards for all development and projects, including systems configuration, to maintain business continuity.
- Regularly reviews system functionality and business continuity based on input and insight obtained from IST and other internal experts with respect to recommended checkpoints.
- Coordinates technical change management activities.

**All employees of the University are expected to follow University and departmental health and safety policy, procedures and work practices at all times. Employees are also responsible for the completion of all health and safety training, as assigned. Employees with staff supervision and/or management responsibilities will ensure that assigned staff abide by the above, and actively identify, assess and correct health and safety hazards, as required.*

Required Qualifications

Education

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- University degree in computer science or engineering, or relevant industry experience

Experience

- 5+ years of experience in web and software development using HTML/XHTML, PHP, MySQL/MSSQL, CSS, and JavaScript/jQuery, among others
- Experience and knowledge of web information architecture and UI/UX design principles
- Experience in the implementation, integration, and customization of enterprise technology (ideally including CRM) with ability to manage both applications and databases
- 3 years of progressive experience prioritizing and leading continuous improvement initiatives, preferably in a post-secondary environment
- Experience in digital marketing systems (e.g., content management systems, CRM, email campaign software) would be an asset
- Some experience in a technology role related to marketing and/or communications would be an asset

Knowledge/Skills/Abilities

- Proven facility with programming and building modules in a CMS (ideally Drupal)
- Demonstrated understanding of best practices in information architecture, the identification of functional requirements, user interfaces, usability testing, accessibility standards, and testing
- Excellent written and oral communication skills, including the ability to translate technical concepts into simple language or visual schematics in order to facilitate understanding among campus colleagues and leaders
- Ability to build consensus, foster teamwork among a variety of stakeholders
- Strong organizational skills coupled with proven ability to effectively document work, handle multiple tasks, meet deadlines, and excel in a fast-paced environment characterized by changing priorities
- Intermediate to advanced use of the following tools:
 - HTML email campaign software platforms
 - Google Analytics Solutions
 - SEO tools (moz.pro)
 - Content Management Systems (Drupal)
 - Process Efficiency Scripting Tools (Selenium)
 - Adobe Creative Suite
 - Customer Relationship/Engagement Management Systems (Suite CRM)
 - Slack/Mattermost
 - iWork/Microsoft Office Suite

Nature and Scope

- **Contacts:** Internally, communicates with a wide range of university departments and groups at all levels to the successful execution and integration of a variety of technical initiatives in support of the overall goals of the Registrar's Office. Externally, provides clear written information for a variety of student audiences and external vendors.
- **Level of Responsibility:** Technically leads a university-wide function or process to drive, recommend, implement, and provide training and support for technical solutions. Will drive continuous improvement through systems development projects and is our subject matter expert on digital marketing infrastructure within the office. Ensures the efficient and effective operation of all websites, applications, databases, and systems associated with recruitment strategies, the success of which significantly affects the achievement of university enrolment management and revenue goals.

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- **Decision-Making Authority:** Continually makes decisions and provides leadership about the most effective methods of operationalizing all future student digital communications and marketing strategies, including organization of resources, market research, hardware and software purchases, organization of staff and resources, personal interactions and collaboration, workflow, consultation, and other key accountabilities; determines the optimal course of action to solve problems and to exert a positive influence on other stakeholders.
 - **Physical and Sensory Demands:** Requires high attention to detail and must be able to handle distractions and changing priorities while meeting required deadlines; minimal demands typical of a position operating within an office environment; periods of extensive sitting and concentrated use of visual senses. Occasional extended times of standing and walking during campus wide events and promotions. Occasional lifting and transportation of computer and audio-visual equipment.
 - **Working Environment:** Minimal exposure to disagreeable conditions typical of a position exposed to stress and pressure associated with project-management-level responsibilities; intermittent work outside the normal operating hours of the institution.