Research Assistant (Software Developer) at Carleton Immersive Media Studio

Contact: Professor Stephen Fai  
Associate Professor, Azrieli School of Architecture & Urbanism  
Director, Carleton Immersive Media Studio  
Carleton University, Ottawa  
613-520-2600, ext. 3423  
sfai@cims.carleton.ca

Number of positions: 1 full-time or 2 part-time

Start date: September 8, 2020

Background & Description of Organization:

Carleton Immersive Media Studio (CIMS) is a Carleton University Research Centre (CURC) affiliated with the Azrieli School of Architecture and Urbanism and the Department of Civil and Environmental Engineering. Our research addresses the development of hybrid workflows that both acknowledge the invisible measures of architecture and animate the visible world of construction. Our work uses established and emerging digital technologies to explore and support architectural rehabilitation, heritage conservation and built-asset management. We are advocates for the thoughtful and critical integration of computing and information technologies within existing cultural and disciplinary contexts — eschewing the evangelical rhetoric that often surrounds “the digital”. Over the past decade, CIMS has developed an international reputation — working with public, private, and not-for-profit partners — to create a culturally rich and diverse portfolio of projects. We are engaged in five streams of research: Digitization, Building Information Modelling (BIM), Simulation, Digitally Assisted Fabrication, and Digitally Assisted Storytelling. Information on past and current CIMS projects is available online at http://www.cims.carleton.ca.
Job Description: Software Developer

The successful applicant will contribute to a team of software developers, user experience and architects to develop an innovative 3D mapping application. Collaboration with content teams will be expected for the development of compelling and innovative digital experiences that may include traditional web-based formats, augmented reality (AR), virtual reality (VR), and more. The successful applicant will have an array of communications, programming and software design/development skills:

Experience/Education

- Completed/enrolled in higher education related to software development
  - i.e. Computer Science, Systems and Computer Engineering
- Front-end/back-end/full-stack development experience

Soft-Skills

- Communication skills with both non-programmers and programmers
- Ability to collaborate among multidisciplinary team members
- Ability to complete project deliverables in a timely manner
- Ability to work independently and in a team environment
- Ability to provide and receive constructive criticism
- Problem solving skills
- Ability to develop strategies and standards
- Advanced knowledge of programming concepts.
- Willingness to learn new skills and technology
**Technical Skills**

- Knowledge of software architecture
  - ability to design system architecture models
  - ability to support the design, development, and maintenance of software products.
- Advanced knowledge of web-based programming languages (e.g. HTML, CSS, JavaScript, PostgreSQL, MySQL, Node.js)
- Advanced knowledge of databases
- Knowledge or experience using source control (Git, Bitbucket, SourceTree)
- Familiarity with popular web-based plugins and frameworks (React.js, jQuery, ThreeJS, Node.js)
- Familiarity with web servers and command line interfaces

**Additional Assets**

- Experience working with Agile methodologies