

Student Research Opportunities -- Centre for Mobile Innovation (CMI) Research Projects

Part-time Position
Job Title: Mobile Application Developer
Industry Partner: Nevvon: https://nevvon.com
Key Role: co-mentorship, equipment provider/access
Principle Investigator: Prof. El Sayed Mahmoud
Area of expertise: ML, Research, software design, software development
HQP: key skills sets: Mobile Application Developer; Mobile Healthcare Software Developer
Project Summary:
<p>This section presents a description of the <i>CMI-Nevvon Project</i>.</p> <p>Background: Nevvon: https://nevvon.com Increasing attention has been drawn to the critical shortages in trained healthcare personnel throughout the world. In North America, there critical shortages in health work force density with a projected deficit of millions of home health care workers Investing in the training and ongoing development of the healthcare work force is considered among the most effective means of improving health outcomes.</p> <p>The scope of this project is to assess Nevvon’s mobile apps and potentially create a new Mobile App for Nevvon. Nevvon currently has two native Mobile Apps (iOS and Android) and would like the following activities performed:</p> <ul style="list-style-type: none"> • iOS app assessment (Activity #1): Currently, Nevvon has a native iOS app. This activity will involve a feasibility analysis and assessing whether or not the app in its current state should be continued and maintained or discarded in pursuit of a better, easier maintained, device agnostic solution instead; this activity will involve learning and assessing Nevvon’s current and future requirements to make an informed recommendation. • Android app assessment (Activity #2): Currently, Nevvon has a native Android app. This activity will involve feasibility analysis and assessing whether or not the app, in its current state should be continued and maintained or discarded in pursuit of a better, easier maintained, device agnostic solution instead; this activity will involve learning and assessing Nevvon’s current and future requirements to make an informed recommendation. • Mobile Device Agnostic App (Activity #3): Based the outcome of Activities #1 and #2, this activity will involve either enhancing the existing iOS and Android apps based on Nevvon’s needs for updating them or will involve designing and developing a new device agnostic mobile app using leading-edge frameworks (e.g., mobile web: React Native, Bootstrap, Angular, etc.; and/or native app from a single codebase: Xamarin, Flutter, etc.). • Future Enhancements, if time permits will be considered as the project unfolds. <p>Time and Schedule:</p> <ul style="list-style-type: none"> • 10 - 13 h / Week • 60% - 70% - Face-2-Face Teamwork (remote work due to COVID) <p>Dates:</p> <ul style="list-style-type: none"> • Jan 11, 2021 to Apr 23, 2021 (excludes reading week) <p>Remuneration:</p> <ul style="list-style-type: none"> • \$18 - \$22.55 / hour depending on experience and qualifications. <p>Technologies:</p> <ol style="list-style-type: none"> 1) Mobile Application Development (Native and Web) 2) React Native, Bootstrap, Flutter, Xamarin 3) iOS with Swift 4) Android (Java/Kotlin)

Responsibilities:

- Research emerging technologies, frameworks and techniques relevant to the research project
- Research and review literature as required by the research project
- Research 3rd party components that can be reused in the project
- Software development, software design, modeling and requirements analysis
- Test, debug and troubleshoot software applications developed for the research project
- Estimate and plan tasks that meet agreed upon deadlines
- Participate in team-meetings, prepare, participate in presentation meetings and communicate with industry partners under the supervision of the PI
- Work Face-2-Face with the team for the majority of the time dedicated to the project

Job Requirements (Required):

- Demonstrable experience developing universal applications capable on working on multiple device types (e.g. mobile, tablets and large-screen devices) using React Native, iOS App Development using Swift, Android App Development;
- Demonstrable mobile app development on Android and iOS platform
- Demonstrable knowledge of professional development practices, best-practices, using debugging techniques, unit-testing and software version control.
- Experience in designing and/or analyzing design visualized using UML
- Interest in developing healthcare mobile software systems
- Can-do attitude, resourceful, demonstrates initiative, creativity and passion for purposeful, result-oriented research
- Minimum 1 year academic experience in the Mobile Computing Degree program or 2 years and relevant COOP experience in a related diploma program.

Job Requirements (Beneficial / Good to have assets):

- Experience developing native applications
- Experience using RESTful APIs
- Experience developing native apps using React Native
- Experience developing native apps using Flutter
- Multi-threaded programming experience
- Experience in software modeling using Visual Paradigm
- Experience in communication using team tools such as MS Teams
- Experience in project planning and management using agile management tools such as Asana, MS Teams, BitBucket, Github, Jira, etc.
- Interest and experience in UI design, graphics and digital media design

NOTE:

This position is funded through the Work Study program only. Job offers will be made subject to the student's approval for Work Study. Please review the eligibility criteria for Work Study to see if you will be eligible. Unfortunately, international students are not eligible for Work Study funding, but can still apply to this job. You can find information on Work Study here:

<https://www.sheridancollege.ca/admissions/financial-aid-and-awards/work-study-assistance.aspx>