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February 3, 2015

TO WHOM IT MAY CONCERN,

This email is being sent to inform you of two job opportunities that are available and we would like to get your assistance in communicating this message to your students (or members).

Successful candidates will be working with **Principal Investigator, Francis LeBouthillier** in assisting with a Research Project.

The Research Project consists of the integration of MR and CT scans of open available fetal model data, at a gestational age of approximately 28 weeks. In addition, the project will also insert into the existing healthy data, selected pathological conditions for specific study. The research team will explore new software applications to create high-resolution, life-like and accurate segmentations of surface, bone and organs that will ultimately produce more accurate fetal models for training.

The available positions are:

1. Graduate Research Assistant - Fetal Model Data Management
2. Graduate Research Assistant - Fetal Model 3-D Modelling and Material Development

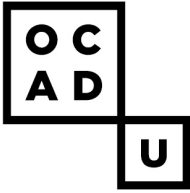
For more information about Principal Investigator, Francis LeBouthillier , please review the following web link:

http://apache.ocad.ca/faculty_biographies/bio.php?bid=1200&fac=art

I have attached both job descriptions for your consideration.

Thank you for your time.

Angith Mohanarajan



Job 1- Graduate Research Assistant

Job Description: Fetal Model Data Management

Project Summary

The Research Project consists of the integration of MR and CT scans of open available fetal model data, at a gestational age of approximately 28 weeks. In addition, the project will also insert into the existing healthy data, selected pathological conditions for specific study. The research team will explore new software applications to create high-resolution, life-like and accurate segmentations of surface, bone and organs that will ultimately produce more accurate fetal models for training.

Summary of Responsibilities

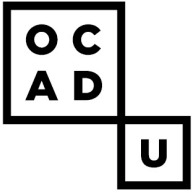
The new hire will be working with the project Principal Investigator, Francis LeBouthillier and other research collaborators in support of the research goals.

Some of the duties include:

- Data collection, literature searches, data compilation, processing, entry and analysis.
- Assisting with experimental systems design, fabrication and maintenance.
- Translating MR and CT scans into 3D data.
- Assist in the segmentation of surface bone and vital organs.
- Assisting with the preparation of proposals, progress and final reports.
- Assisting with the promotion of research activities, including the creation of content, information, diagrams etc. and assisting with Research Posters.
- Assisting with project coordination, budget management and administration of research activities as directed.

Qualifications

- Bio-Medical Imaging experience and/or background from the profession.
- Completion of a relevant graduate degree or currently enrolled in a relevant graduate program and/or equivalent training and professional experience.
- Familiar with the software “Amira”, and equivalent software.
- Experience with and thorough understanding of how to perform MRI and CT Scanning.
- Familiar with and have experience making 3-D models.
- Comfortable working with existing data set to analyze, make further inquiries, predictions and to be utilized in creating 3-D Models.
- Strong organizational, written communications, and problem solving skills.



Hours of work

15 hours approx. per 8 weeks total of 120 hours

Work Environment

Work environment is flexible when it comes to work performed on a computer, and other times work will be done at the 3D Manufacturing Lab at OCADU.

Compensation

\$29.44 gross per hour rate

Application Procedure

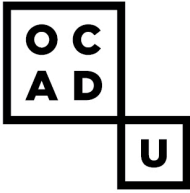
Applicants should provide a one-page covering letter explaining their interest, a C.V., and three references. To apply please select the “Apply for this Position” button below.

Review of applications will be conducted on an ongoing basis and continue until the position has been filled.

As an employment equity employer, we encourage applications from women, Aboriginal peoples, visible minorities, persons with disabilities, and persons of all sexual orientation or gender identity.

All qualified persons are encouraged to apply; however, Canadians and permanent residents of Canada will be given priority.

While we thank all candidates for their interest, only those short-listed will be contacted.



Job 2- Graduate Research Assistant

Job Description: Fetal Model 3-D Modelling and Material Development

Project Summary

The Research Project consists of the integration of MR and CT scans of open available fetal model data, at a gestational age of approximately 28 weeks. In addition, the project will also insert into the existing healthy data, selected pathological conditions for specific study. The research team will explore new software applications to create high-resolution, life-like and accurate segmentations of surface, bone and organs that will ultimately produce more accurate fetal models for training.

Summary of Responsibilities

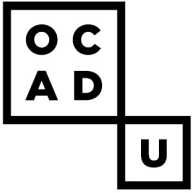
The new hire will be working with the project Principal Investigator, Francis LeBouthillier and other research collaborators in support of the research goals.

Some of the duties include:

- Characterization and literature research of tissue properties relevant to surgical training such as stress-strain behaviour, puncture strength, suture pullout strength, etc.
- Translation of tissue properties to material selection.
- Material manufacturing and manufacturing process development.
- Simulation and computer generated modeling.
- Assisting with the supervision of research activities in the lab and within the field.
- Assisting with the preparation of proposals, progress and final reports.
- Assisting with the promotion of research activities, including the creation of content, information, diagrams etc. and assisting with Research Posters.
- Assisting with project coordination, budget management and administration of research activities as directed.
- Dissemination of research including patent filling, publication, and conference attendance.

Qualifications

- Bio-Medical Imaging or Mechanical Engineering experience with exceptional digital 3D Modelling skills.
- Completion of a relevant graduate degree or currently enrolled in a relevant graduate program and/or equivalent training and professional experience.
- Hands-on experience using silicone.
- Familiar with the software “Rhino”, and equivalent software.



- Prior work experience with Tool and Die machines and processes, is an asset.
- Experience using “Mudbox and/or Z-brush”.
- Comfortable working with existing data set to analyze, make further inquiries and predictions for research.
- Strong organizational, written communications, and problem solving skills.

Hours of work

15 hours approx. per 8 weeks total of 120 hours

Work Environment

Work environment is flexible when it comes to work performed on a computer, and other times work will be done at the 3D Manufacturing Lab at OCADU.

Compensation

\$29.44 gross per hour rate

Application Procedure

Applicants should provide a one-page covering letter explaining their interest, a C.V., and three references. To apply please select the “Apply for this Position” button below.

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