

# FITSUM AKLILU REDA

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Nationality: Ethiopian  
Birth date: SEPT. 20, 1983

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## EDUCATION

- Sept. 2007 – Present      **MSc in Computer Vision and Robotics**      [www.vibot.org](http://www.vibot.org)  
Jointly studied and awarded by:  
Heriot-Watt University, Edinburgh, UK      [www.hw.ac.uk](http://www.hw.ac.uk)  
University of Girona, Girona, Spain      [www.udg.edu](http://www.udg.edu)  
University of Burgundy, Le Creusot, France      [www.u-bourgogne.fr](http://www.u-bourgogne.fr)
- Sept. 2001 – July. 2006      **BSc in Electrical Engineering**  
CGPA 3.83/4.0 (Very Great Distinction)  
University of Mekelle, Ethiopia      [www.mu.edu.et](http://www.mu.edu.et)

## WORK EXPERIENCE

- January 2009 – Present      **Toshiba Medical Visualisation Systems, Edinburgh, UK**      [www.tmvse.com](http://www.tmvse.com)  
**Masters Research Thesis**  
▪ Bone removal in CTA - that is, to reinforce 3D visualisation softwares to recognise voxels belonging to bones and render these voxels transparent in the visualisation.
- July 2008 – Sept. 2008      **Ocean Systems Laboratory, Heriot-Watt University, Edinburgh, UK**  
**Research Intern**  
▪ Autonomous underwater robot localization and mapping using sonar data.  
▪ Implement Kalman and Particle filter techniques of localization
- July 2006 – Sept. 2007      **University of Mekelle, Ethiopia**      [www.mu.edu.et](http://www.mu.edu.et)  
**Assistant Lecturer**  
▪ Full time instructor for undergraduate Electrical Engineering courses.  
▪ BSc thesis advisor for senior EE undergraduate students
- July 2005 – Sept. 2005      **University of Gondar, Ethiopia**      [www.ugondar.edu.et](http://www.ugondar.edu.et)  
**IT Intern**  
▪ Develop webpage for University of Gondar Library  
▪ Automate University of Gondar library catalogue system using *eLM* management software.
- July 2004 – Sept. 2004      **Dashen Brewery Share Company, Ethiopia**  
**Industrial Intern**  
▪ Hands on experience on automated control systems

## ACHIEVEMENTS

- Sept. 2007      Erasmus Mundus scholarship awarded by the European Commission, 2007-2009
- August. 2007      Recognised and awarded as best academic-staff of department of Electrical Engineering, University of Mekelle, 2006-2007.
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## **MAJOR PROJECTS**

### **3D Digitization**

- 3D Reconstruction of Transparent Objects Using Infrared Imaging  
Tools used: C++, Python and Matlab

### **Image Processing and Visual Perception**

- Object Tracking (Hand- counting fingers) in real time  
Tools used: Handle-C, DK Design Toolkit and Celoxica RC-10 board
- Image Segmentation - Region Growing and Mean Shift. Tools used: Matlab
- Image Characterization and Parameterization for Prostate Gland Cancer Detection. Tools used Matlab
- Camera Calibration, Structure from Motion, Solving Image Correspondence Problem. Tools used Matlab.

### **Pattern Recognition**

- PASCAL - Visual Object Classification System. Tools used: Matlab
- Decision Tree - Discover Fashion in Second Life. Tools used: C++
- Mean Shift Clustering for Line Extraction. Tools used: Matlab

### **Autonomous Robots**

- Autonomous underwater vehicle localization using sequence of sonar images.
- Robot path planning and decision making. Tools used: C++

### **BSc Thesis**

- Speaker Recognition Using Artificial Neural Networks. Tools used C++

## **THECHNICAL SKILL**

- Programming Languages (Visual C++, Visual Basic, JAVA, C#)
- Application Software (MATLAB, Open CV, Electronic Workbench)
- Webpage Development (HTML, JAVA Script, Macromedia MX)
- Neural Computing

## **SOCIAL SKILLS**

Strong communication, interpersonal and teamwork skills. My graduate study classmates are from different part of the world with different cultural and linguistic backgrounds and this has further proved my ability to work harmoniously with intellectuals from different backgrounds.

## **REFERENCES**

- Will be provided upon request.
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