

Robert B. Hamilton

1402 Greenfield Ave. APT 2
Los Angeles, CA 90024

6916 Pet Haven Ln.
Boise, ID 83716

208-409-6345

Rhamilton@mednet.ucla.edu

EDUCATION:

M.S., Biomedical Engineering, **University of California, Los Angeles**, 2009

Concentration: Biomedical Instrumentation

B.S., Biomedical Engineering, **Washington University in Saint Louis**, 2008

Concentration: Biomechanics

B.A., Mathematics, **College of Idaho**, 2008

RESEARCH:

Neural Systems and Dynamic Lab (NSDL) at the Department of Neurosurgery, UCLA

- MRI imaging of CSF flow dynamics
- Multimodality physiologic monitoring
- Clinical rounds (ICU, MRI, Brain surgery)

MRI Measurement of Cortical Folding, Washington University in St. Louis

- Knowledge of different medical imaging disciplines
- Characterization of brain mechanics

EMPLOYMENT HISTORY:

University of California, Los Angeles Dept. of Neurosurgery Los Angeles, California
Graduate Researcher Oct 2008 –Present

- Clinical MRI and multimodality physiologic monitoring

Idaho City High School (Basin School District) Idaho City, Idaho
Mathematics Substitute Teacher Aug-Sept 2008

- Pre-Algebra to Calculus sequence

Hong Kong Poly University Hong Kong, China
Research Student August 2007

- Developed AFOs for Cerebral Palsy patients in China

Summer Undergraduate Research Fellowship Program Saint Louis, Missouri
Research Student May 2007-August 2007

- Continued research using MRI techniques for the study of brain development in ferrets.

Biomedical Engineering, St. Alphonsus Regional Medical Center Boise, Idaho
Engineering Intern July 2006

- Observed and assisted in maintenance of hospital equipment

Washington Group International Engineering Internship Boise, Idaho
Engineering Intern Summer 2005

- Performed quantity take-off for construction drawings

Ben's Crow Inn & Pearl's Oyster Bar
Server/Manager

Boise, Idaho & Saint Louis, Missouri
2001-2008

- Accounting and general management responsibilities

PUBLICATIONS:

IEEE EMBS Annual International Conference

Minneapolis, Minnesota

- Forecasting Plateau Waves Based on Prescient Changes of Intracranial Pressure Waveform Morphology

September 2-6, 2009

PRESENTATIONS:

Summer Undergraduate Research Fellowship Symposium

Saint Louis, Missouri

Presenter

October 2008

- Simulation of diffusion tensor imaging and data processing to characterize brain development.

FELLOWSHIPS:

Summer Undergraduate Research Fellowship Symposium

Saint Louis, Missouri

Howard Hughes Medical Institute

October 2008

LEADERSHIP:

UCLA Triathlon Team

Los Angeles, California

Webmaster/Member

Fall 2008-Present

Institute of Electrical and Electronics Engineers (IEEE)

Saint Louis, Missouri

Treasurer

Spring 2007- Spring 2008

Association of Dual Degree Engineers

Saint Louis, Missouri

Vice President

Spring 2007- Spring 2008

Washington University in Saint Louis

Saint Louis, Missouri

Varsity Baseball

Fall 2007- Spring 2008

College of Idaho

Boise, Idaho

Varsity Baseball

Fall 2003- Spring 2006

SKILLS AND QUALIFICATIONS:

Imaging

- MRI (DTI, CINE, General MRI sequences)

Programming Skills

- C++, Matlab

Image Processing Software

- MIPAV, ImageJ, Slicer3D