KYLE W. SINGLETON

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SUMMARY

Biomedical Engineering PhD with focus in medical informatics and disease modeling. Experience leading a team in program design, implementation, and deployment and facilitating communication between engineering, medical, and clinical personnel. Proficient at data cleaning and model creation with SPSS, R, and MATLAB; moderate experience with additional programming languages.

EDUCATION

University of California, Los Angeles Los Angeles, CA
Doctor of Philosophy, Biomedical Engineering; GPA: 3.5 June 2016 (Expected)
Dissertation: Establishing methods for prognostic graphical model adjustment across observational cohorts
Advisors: Alex A.T. Bui and William Hsu

University of Virginia Charlottesville, VA
Bachelor of Science, Biomedical Engineering; GPA: 3.1 May 2006
Minor: Computer Science

PROFESSIONAL EXPERIENCE

Graduate Student Researcher 2012 - Present
UCLA Medical Imaging Informatics, Los Angeles, CA

- Supervised graduate student team, reviewing 500+ cancer cases for prognostic disease model evaluations.
- Implemented novel techniques for generalizing models between public and local data domains.

National Library of Medicine Fellow 2008 - 2012
UCLA NLM Medical Imaging Informatics Training Program, Los Angeles, CA

- Programmed and supported a tablet based system used to survey 10,000+ patients in three Los Angeles clinics.
- Completed coursework in medical informatics, statistics, and machine learning.

Post-baccalaureate Fellow 2006 - 2008
National Institutes of Health, Bethesda, MD
Section on Stroke Diagnostics and Therapeutics, NINDS

- Designed new imaging workflow, accelerating availability for stroke research tasks.
- Developed a 100 patient case MRI stroke atlas.

Undergraduate Researcher 2005 - 2006
Computational Systems Biology Lab, Charlottesville VA

- Collaborated with two students to create metabolic network reconstruction of Leishmania major.

SKILLS

Programming Languages: C++, Java, R, C#, ASP.NET, MATLAB, PHP, IDL
Informatics Tools: MATLAB, R, SPSS, RapidMiner, Weka, GENIE
Medical Data Standards: DICOM, HL7, XML, OWL, UMLS, HIPAA

PUBLICATIONS

Singleton KW, Speier W, Bui AAT, Hsu W. Motivating the additional use of external validity: examining transportability in a model of glioblastoma multiforme. AMIA Annu Symp Proc. 2014;2014:1930–9.

Singleton KW, Bui AAT, Hsu W. Transfer and transport: incorporating causal methods for improving predictive models. J Am Med Inform Assoc 2014;:amiajnl–2014–002968. doi:10.1136/amiajnl-2014-002968