Alvin G. Thomas *Curriculum vitae*

CONTACT INFORMATION

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RESEARCH INTERESTS

Utilizing Epidemiologic Methods in Transplantion: I believe that mathematical techniques can be used to improve the lives of millions. I hope to use my background in engineering and computer science to answer important questions in medicine. I currently work in the field of transplantation with the Epidemiology Research Group in Organ Transplantation (ERGOT) at the Johns Hopkins University School of Medicine.

CURRENT POSITION

Research Data Analyst, Johns Hopkins University — August 2016 to present
School of Medicine, Department of Surgery
Epidemiology Research Group in Transplantation

EDUCATION

Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD

M.S.P.H., International Health, May 2016

- Thesis Topic: *The mLAKE Community Trial: Using mHealth to Empower CHWs to Encourage Combination HIV Prevention*
- Adviser: Larry W. Chang, MD, MPH

Washington and Lee University, Lexington, VA

B.S., Chemistry-Engineering, May 2014

- *Honors* in Engineering
- Thesis: *Plasticity in Dissociated Neuronal Networks under Chronic Stimulation*
- Adviser: Jonathan Erickson, PhD
- Minor in Poverty and Human Capabilities

REFEREED JOURNAL PUBLICATIONS

[1] Perin, J, **Thomas, A**, Oldja, L, Ahmed, S, Parvin, T, Bhuyian, SI, Sarker, B, Biswas, SK, Faruque, AS, Sack, RB, and George, CM, 2016. Geophagy is associated with growth faltering in children in rural Bangladesh. *The Journal of Pediatrics*. 2016 Nov 30; 178:34-9. doi:10.1016/j.jpeds.2016.06.077

CONFERENCE POSTERS

[2] **Thomas AG**, Shaffer A, Massie A, Segev DL. Use of Pulsatile Perfusion Modifies the Effect of Delayed Graft Function on Graft Failure. In: *American Transplant Congress*, Chicago, IL, USA, April 29 - May 3, 2017.

[3] **Thomas AG**, Massie A, Garonzik-Wang J, Lentine K, Henderson M, Segev DL. Landscape of Multiple Donations from a Living Donor in the US. In: *American Transplant Congress*, Chicago, IL, USA, April 29 - May 3, 2017.

[4] Henderson M, **Thomas AG**, Massie A, Luo X, Shaffer A, Holscher C, Segev DL. The Unfunded OPTN/UNOS Mandate of Living Kidney Donor Follow-up: Fewer than 50% of Centers in Compliance. In: *American Transplant Congress*, Chicago, IL, USA, April 29 - May 3, 2017.

[5] **Thomas AG**, Henderson ML, Massie AB, Shaffer A, Luo X, Holscher CM, Segev DL. Fewer than 50% of Transplant Centers Fully Comply with OPTN Living Donor Follow-up Policy. In: *American Society of Transplant Surgeons*, Miami, FL, USA, January 26-29, 2017.

[6] Hapern SE, **Thomas AG**, Holscher CM, Massie AB, Henderson ML, Anjum S, Locke JE, Segev DL. Sexual Dysfunction Among Living Kidney Donors. In: *American Society of Transplant Surgeons*, Miami, FL, USA, January 26-29, 2017.

[7] Long A, Hutton H, Mbabali I, **Thomas A**, Bugos E, Mulamba J, Amico KR, Nalugoda F, Gray R, Wawer M, Nakigozi G, Chang LW. Evaluation of a Motivational Interviewing-Informed, mHealth-Supported CHW Training Program to Promote HIV Treatment and Prevention in a HIV Hotspot Ugandan Fishing Community. In: *International Association of Providers of AIDS Care*, Fort Lauderdale, FL, USA, May 9-11, 2016.

[8] Chang LW, Mbabali I, Kong X, Hutton H, Long A, **Thomas A**, Bugos E, Ssekasanvu J, Kennedy C, Amico KR, Nalugoda F, Reynolds SJ, Quinn T, Serwadda D, Gray R, Wawer M, Nakigozi G. A Cluster-Randomized Trial to Promote Combination HIV Prevention Using mHealth-Supported CHWs in a High-Prevalence Ugandan Fishing Community: Design and Baseline Characteristics of the mLAKE Trial. In: *International AIDS Conference*, Durban, South Africa, July 18-22, 2016.

[9] Erickson J, **Thomas A**, Strickland K, Barnes A. Iterative Gaussian mixture model splitting of multimodal PSTH for studying activity dependent changes in cultured network connectivity. In: *Society for Neuroscience*, San Deigo, CA, USA, November 9-13, 2013.

RESEARCH/WORK EXPERIENCE

Research Assistant | Rakai Health Science Program | 2015-2016
- Engaged in two mHealth implementation science research projects aimed at improving uptake of HIV services in rural Uganda. Developed data analysis code in R for monitoring and evaluation activities. Trained community health workers and study staff. Assisted in the development and testing of two mHealth applications. Contributed to study questionnaires, standard operating protocols, and training materials.

Data Manager | Johns Hopkins University | 2016
- Performed data management activities to ensure data quality using SAS, EpiInfo, and Stata for the NSEBA Study which aims to improve detection of pediatric HIV in Zambia.

Research Assistant | International Vaccine Access Center | 2014-2015
- Performed data abstraction for a systematic review to determine the global burden of Haemophilus influenza type B, Streptococcus Pneumoniae, and Neisseria meningitides.

Student Reseracher | Shepherd Poverty Program | 2013
- Analyzed data from the CDC Health, 2011 report to present longitudinal data analysis on the relationship between socioeconomic status and health status. Funded by the University Research Scholarship. Advisor: Harlan Beckley, PhD

Biomedical Engineering Technician | Engineering World Health | 2013
- Fully repaired 20 medical devices, took full inventories of the Rubavu hospital and its ten surrounding health clinics, and conceptualized a novel medical device to perform lab equipment calibrations in resource-scarce environments.

AMERICORPS SERVICE

Robotics Program Founder | Lexington City Schools | 2011-2014
- Created and ran a program that uses Lego NXT robots to introduce middle school and elementary students to robotics, computer science, and engineering design utilizing a $2500 grant from NASA.

Shift Leader | Campus Kitchens Project | 2011-2014
- Addressed local hunger as a ServSafe-certified manager by supervising shifts that collected, prepared, and served over 300 meals/week.

Trip Coordinator | Volunteer Venture Program | 2011-2013
- Coordinated three weeklong service trips for incoming students, which involves budget management and logistical planning.

Therapeutic Nursery Intern | Kennedy Krieger Institute | 2011
- Conducted play-therapy sessions with homeless toddlers and their families. Provided care for the children and assisted with an active study in child psychology.

Patient Eligibility Intern | Rockbridge Area Health Center | 2010-2012
- Helped manage the medical database, helped eligible patients acquire free medication from pharmaceutical companies, and answered patient questions by phone.

HARDWARE AND SOFTWARE SKILLS

Computer Programming:
- C, C++, Java, Python, SQL, MySQL

Numerical Analysis:
- R, Stata, MATLAB, Maple

Version Control and Software Configuration Management:
- Git, SVN

Desktop Editing and Productivity Software:
- Atom, Xcode, RStudio
- TEX (LATEX, BIBTEX)
- Microsoft Office, LibreOffice, Google Docs, iWork
- GIMP, Adobe Photoshop

Operating Systems:
- Apple OS X, Microsoft Windows, Linux (Fedora)

AWARDS

Johns Hopkins University Bloomberg School of Public Health
- Center for Global Health Pilot Grant, 2015

Washington and Lee University
- Algernon Sydney Sullivan Award, 2014
- Omicron Delta Kappa Leader of the Year, 2014
- Sigma Pi Sigma Physics Honor Society, 2013
- Johnson Opportunity Grant, 2013
- Evans International Grant, 2013
- Avis P. Waring Scholarship, 2013
- Omicron Delta Kappa Leadership Honor Society, 2013
- Johnson Scholarship, 2010-2014