## **MAO-CHI WENG**

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## **EDUCATION**

Boston University, Boston, MA

Expected May 2015

MS, Computer Science

Master's Project: Relational database versus hierarchical database: a comparison of graph storage

Boston University, Boston, MA

May 2013

BA, Computer Science

## **WORK EXPERIENCE**

# Boston University, Health Technology and Change Lab - Boston, MA

Principal Software Engineer

1/2014 - 12/2014

- DASH Mobile Pilot
  - Built a website with real-time communication portal to allow healthcare providers to implement a pilot study to reduce hypertension by monitoring patients' diet, exercise, counseling, weight, and blood pressure, using data collected through Bluetooth devices and a mobile phone application.
  - Managed a team of 4 to complete the DASH Mobile platform and communicate with clinical staff to build the final product.
  - Provided dedicated server maintenance for smooth communication between iOS application, Android application and Website.
- EPIC-GOALS: Planned and built a service to allow Hyperspace to view external server's patient health data
- Integrated Clinical Prediction Rule 2 (iCPR2): Helped plan a real-time decision support system in
  Hyperspace to reduce the amount of Best Practice Advisories (BPA) firing in half, to prevent alert fatigue
  in clinical settings.

#### Boston University, Division of Preventive Medicine & Epidemiology - Boston, MA

Project Manager

4/2013 - 12/2013

- DASH Mobile
  - Created and maintained project timelines for UI development; iOS creation/porting
  - Managed a team of 6 developers, working with clinical staff to communicate ideas and vision of application.
  - Implemented Bluetooth health devices integration with android and iOS app

## Lead Software Engineer

5/2012 - 3/2013

- Motorola MOTOACTV Fetch: Built a program to scrape data off Motorola website to collect health data associated with Motorola's MOTOACTV watch.
- Hypertension Mobile App: Built an android application to help patients track their diet and exercise habits. In addition, built a server to interact with the android application.

## Boston University, Department of Computer Science - Boston, MA

Research Intern

2/2013 - 12/2013

- *Tunnel:* Built a Real-time remote car controller with video streaming capabilities. Applied computer vision and machine learning techniques for facial recognition and collision detection.
- Bracken Cave Bat Census: Assisted in fine-tuning a census algorithm to calculate the bats count of the Bracken Cave thermal video with computer vision techniques.
- Recursive InterNetwork Architecture (RINA): Ported the project to Android platform. In addition, built an Android app for mobility testing to determine the capability of device with RINA network's when moving.

IT Specialist and Teacher Assistant

- Provided client service support on office software, operating systems
- Taught SAT math, AP Calculus sessions, in both private tutoring and class room setting
- Designed curriculum, and developed strong public speaking and presentation skills

#### **AWARDS**

2014 Center for Integration of Medicine & Innovative Technology (CIMIT) Student Prize for Primary Healthcare 'Developing a mHealth platform for primary care behavioral interventions' - 3<sup>rd</sup> place winner (\$60,000)

2013 Undergraduate Research Opportunities (UROP) 'Dietary Approaches to Stop Hypertension (DASH) Mobile App'

## **SKILLS AND CERTIFICATIONS**

#### **Epic Training**

Coursework Completed (Summer 2014): EpicCare Ambulatory Report Writer, Research Informatics Innovator – Core, Informatics Innovator – Advanced, EpicCare Ambulatory Analyst, EpicCare Ambulatory Advanced Analyst, Outpatient Decision Support Analyst, Hyperspace Configuration, Chronicles Install Utilities, Chronicles Programmer, MyChart Analyst, Bridges Interfaces Analyst

#### **Technical Skills**

HTML, CSS, JSON, TCP/IP, XML, SOAP, SQL; C/C++, Java, Python, Ruby, MUMPS/Caché ObjectScript, Haskell; Familiar: JavaScript, Perl, MATLAB; MySQL, InterSystem Caché, Ruby on Rails, Android development, iOS development, OpenCV, QT, GTK+, cURL, Beautiful Soup, Visual Basic

## **PUBLICATIONS AND PRESENTATIONS**

Mann DM, Quintiliani LM, Reddy S, Kitos NR, Weng M. "DASH mobile: Development of a mHealth behavior change system." *Journal of Medical Informatics* 2014; 2(4): e41.

Quintiliani L, Mann D, Kitos N, Weng M. *Development of a mHealth Counseling System for Breast Cancer Survivors*. Presented and accepted for award at the 2014 Annual Meeting for the Center for Future Technologies in Cancer Care (CFTCC), August 5, 2014, Boston, MA

Weng M, Kitos N, Mann D, Quintiliani L, Reddy S, Imler D, Kudesia V. *Lifestyle Change Intervention for the Management of Hypertension*. Presentation a at the New England Undergraduate Computing Symposium (NEUCS), March 29, 2014 Boston, MA

Weng M, Kitos N, Mann D. *Lifestyle Change Intervention for the Management of Hypertension*. Abstract presented at the Boston University Evans-Days Research Meeting, October 17, 2013, Boston, MA

Mann D, Kudesia V, Reddy S, Weng M, Imler D, Kitos N, Quintiliani L. *Development of DASH Mobile: A mHealth Lifestyle Change Intervention for Management of Hypertension*. Abstract Presented at Medicine 2.0'13, September 2013, London, UK

Reddy S, Quintiliani L, Kitos NR, Weng M, Mann D. *Development of DASH Mobile: A Mobile-Based Behavioral Change Intervention for the Management of Hypertension*. Abstract Presented at Medicine 2.0'13, September 2013, London, UK

### **LANGUAGES**

English Mandarin Taiwanese