

Michael Blatt

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EDUCATION

Master of Science, Computer Science

Expected to Graduate in 2020

University of Southern California – Los Angeles, California

Bachelor of Science, Biomedical Engineering (Bioelectrical Engineering Emphasis)

Class of 2017

University of Utah – Salt Lake City, Utah

Thesis: Assessment of extracellular volume mapping of the left ventricle using novel Hematocrit estimation methods

GPA: 3.8; Tau Beta Pi Engineering Honors Society member

SPECIALIZED SKILLS

Programming languages: C++, Python, MATLAB, Node.JS

Web Development languages: HTML, CSS, JavaScript, JQuery

Database technologies and frameworks: MongoDB, ExpressJS

Other Skills: Image Processing, Signal Processing, Scientific Computing, ODEs/PDEs, Linear Algebra, Product Development, Project Management, Regulatory Affairs, Design for Manufacturability, CAD modelling, cell culture, histology, social media management, web analytics and marketing, digital video production and editing.

PROFESSIONAL EXPERIENCE

Product Development Engineering Intern, *SimplicityMD*

May 2017 – October 2017

- Assisted in development and maintenance technical files for a class I and II medical device for 510(k) and CE submissions and audits.
- Drafted class I medical device technical file for conformity with CE's medical device regulations (93/42/EEC).
- Drafted quality and risk management systems, assisted in design control drafting and verification testing in compliance with ISO 13485, ISO 14971 and ISO 10993.
- Designed prototypes and designs for injection molding using CAD software.
- Assisted in creation of marketing material and instructions for use.
- Designed and maintained webpages for parent company and product.

Undergraduate Research Associate, *Utah Center for Advanced Imaging Research*

April 2015 – May 2017

- Conducted independent research surrounding cardiovascular MRI data processing, including image registration, signal processing, and physiological modeling primarily in MATLAB
- Handled package version control and managed large-scale datasets containing gigabytes of MR images.
- Reported findings to principle investigator at weekly group meetings and documented software

Board of Directors Member, *University of Utah Ski & Snowboard Club*

August 2014 – November 2016

- Managed relations with club members, partner ski resorts, and business sponsors for the largest student-ran organization at the University of Utah
- Promoted club events and assisted in member recruitment
- Assisted in online content creation and management for social media platforms such as Facebook and Instagram

PROJECT EXPERIENCE

Senior Capstone Project

January – December 2016

- Pediatric Long Bone Loading Device intended to promote bone growth in osteoporotic adolescents
- Conducted device design, prototyping, and verification as outlined by the FDA and CFR title 21
- Primary responsibilities included motor and motor control design and documentation preparation
- Held quarterly design reviews to review design progress

genECVmap.m

June – August 2016

- Independently-developed MATLAB package designed for the Utah Center for Advanced Imaging Research
- Uses linear regression model to predict both fractional hematocrit within the left ventricular blood pool and fractional, pixel-wise, myocardial extracellular volume (ECV) as a function of the inverse of the acquire T1 signal
- Intended for file management, image processing, and image registration of MRI images using code written independently, in-house, and an open source C++ image registration library (ANTS)