

Elton Cheng

Evanston, IL | elton.c22@gmail.com | 714-261-6556

Education

Northwestern University

M.S. in Robotics

Sept 2016

Related Coursework:

Embedded Systems in Robotics, Robotic Manipulation, Computational Geometry, Theory of Machines - Dynamics

University of California, San Diego

B.S. in Bioengineering

Sept 2011 – June 2015

Job Experiences

Software Test Technician I (February 2016 to August 2016)

Panasonic Avionics Corporation

- Tested In-Flight Entertainment Systems using System Acceptance Test Procedures. Ad-Hoc methods were also used to find edge cases not found in test procedures.
- Documented failures/unexpected results that occurred during test procedures and described in detail the setup and steps to cause failure.
- Used Linux to navigate across various parts of the system for testing purposes.

Lab Assistant/Programmer (January 2014 to June 2015)

UCSD: Department of Orthopaedic Surgery

- Developed Matlab software to communicate with lab motor and sensor hardware and automate collection and analysis of 1-D laser diffraction signals from muscle tissue.
- Optimized methodology to freeze and section muscle samples for laser diffraction analysis.
- Developed methodology and Matlab software to capture and analyze 2-D laser diffraction signals from muscle tissue using a webcam.

Programmer (February 2013 to December 2014)

UCSD: Institute of Geophysics and Planetary Physics

- Created Matlab code to handle and sort data from a text file, convert into HTML format, and present the data in summary plots. Code also records and updates data meeting search criterion into text file.
- Debugged/updated previous code to create better looking and more informative plots.
- Created a Matlab GUI to view and label statuses on plots in a user specified folder. Labelled plots are saved and status can be updated/changed in a later session.

Skills

- Proficient in Python, Git, GitHub, Linux, Matlab, Java, SQL and C++.
- Experience working with ROS, Solidworks, AutoCAD, Eclipse, Android Studio, and LabView.

Journal Publications

- O'Connor S.M., **Cheng E.J.**, Ward S.R., Lieber R.L. "Sarcomere length distribution quantification in whole muscle frozen sections." *Journal of Experimental Biology*. <http://dx.doi.org/10.1242/jeb.132084>

Projects

- **AcroDex** – Android application that can store, keep track, and update the numerous acronyms that may come across our daily/work lives. Project was used to become familiar with Android Studio and Android application development.
- **Bioengineering Senior Design Project** – Rehabilitation tool for recovering ankle mobility after ankle sprain. Contributed to the project by using ImageJ to video capture ankle movement data, creating Matlab scripts to analyze data and determine if improvement were made between tool and current methods.
http://beweb.ucsd.edu/courses/senior-design/projects/2014/project_6/index.html
- **Team Robot Competition Webpage**: <https://sites.google.com/a/eng.ucsd.edu/mae3-robots/2013-spring/team-11>