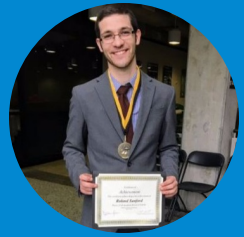


Allen Sanford

Computational Scientist

Looking to combine my mathematical background and industry experience into a Summer 2018 Software Engineering internship.



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 [in/rasanford](https://www.linkedin.com/in/rasanford)

 [/ras9841](https://github.com/ras9841)

Education

Rochester Institute of Technology

RIT

Employment

Full Stack Engineer (Co-op)
Intuit

Jun 2017 - Dec 2017

- Migrated front-end stack from Backbone.js to React with Relay-Saga
- Implemented back-end services and APIs for upcoming features using Java 8 and Spring
- Formed a team to build a statistical model for a customer-facing feature

Contact Lens Research Assistant
RIT, Alden Optical

Jan 2015 - Jan 2017

- Modeled the progression of a soft contact lens and a human eye towards equilibrium to inform contact lens design
- Worked iteratively with contact engineers to create a web application displaying design changes in real-time
- Built a simulation framework in C++ that computed the pressure distribution on the eye given an initial lens shape

Cardiac Imaging Software Developer
RIT, Johns Hopkins Hospital

Feb 2015 - Present

- Created a MATLAB pipeline that constructs to-scale models of a patient's heart and torso, computes the electrical potentials on the heart's surface, and determines the qualitative location of the cardiac arrhythmia
- Conducted patient analysis in collaboration with electrophysiologists at Johns Hopkins Hospital resulting in the successful treatment rate of 92%
- Informing the design of a 120-electrode vest using a genetic algorithm. The fitness function is being optimized to improve signal quality from specified regions of the heart.

Projects