



## PROJECTS

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### iRetain (Ruby on Rails, React.js, Redux) | Sole Developer

[live](#) | [github](#)

*Web app that allows users to create and study decks of topical flashcards*

- Created reusable React components for all form types to DRY code base
- Designed and implemented browser-like tab UI from scratch using HTML5 and SASS
- Implemented auto-lookup feature that utilizes Pearson dictionary API to create flashcards
- Augmented app with Chrome extension, allowing cross-domain creation of flashcards while browsing

### LiteRail (Ruby, SQLite3) | Sole Developer

[github](#)

*A lite version of Ruby on Rails framework with ActiveRecord, both built from scratch*

- Created object relational mapping to connect user to database without the need to write SQL queries
- Complimented design with single-command-generation of models and controllers from terminal
- Designed dynamic error handling with code snippets and stack trace displayed in browser

### Hemoglobe (Photo-plethysmography, Android OS) | Project Manager

[demo](#)

*Non-invasive anemia detection using pulse-oximeter-like device and mobile app*

- Designed and implemented filtering and sampling algorithms for PIC microprocessor
- Managed clinicians and engineers including during overseas field trips and clinical studies
- Oversaw development and transfer of project from academic setting to licensing by Robert Bosch GmbH, a multi-national corporation

### ASL Recognition (Matlab, Artificial Neural Networks) | Lead Engineer

[demo](#)

*Designed and implemented an application for the recognition of American Sign Language*

- Responsible for feature definition and extraction, machine learning algorithm selection and training, and overall application architecture
- Achieved accuracy of > 95% in green screen, static character recognition

## LANGUAGES AND TECHNOLOGIES

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Python Ruby CSS/SASS JS jQuery SQL HTML Ruby on Rails React.js Git Matlab

## EDUCATION

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<b>App Academy</b>	<b>2016</b>	<b>San Francisco, CA</b>
<b>Johns Hopkins University</b>	<b>2013-2014</b>	<b>Baltimore, MD</b>
M.S.E. in Bioengineering, GPA: 3.9		Development and commercialization of med-tech
<b>University of West Florida</b>	<b>2009-2013</b>	<b>Pensacola, FL</b>
B.S. in Electrical Engineering, GPA: 3.8		Minor in mathematics, focus in machine learning

## EMPLOYMENT

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<b>CEO, Cofounder</b>	<b>Glyscend, Inc.</b>	<b>2014 - 2016</b>
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*Life science startup developing novel treatment for type 2 diabetes*

- Led diverse team of engineers, clinicians, and scientists from clinical need discovery and napkin sketch through seed funding and preclinical development in 2 year period
- Raised and managed a non-dilutive seed round of \$615K from various sources

### Research Engineer

**University of West Florida**

**2012 - 2013**

*Used movement data (actigraphy signals) to classify user activity and estimate energy expenditure*

- Used Matlab to implement various machine learning algorithms to evaluate and accurately rank the effectiveness of 63 different features in classifying exercise behavior
  - Presented results at IEEE Southeast Con 2013 in Jacksonville, FL
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