

Alexander Maru

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EDUCATION

- **University of Waterloo** Waterloo, ON
Bachelor of Mathematics; Mathematics and Computer Science *Sept. 2014 – Present*
- **Ignition, Spark Boulder** Boulder, CO
Web Development Coding Camp *Feb. – May 2015*

EXPERIENCE

- **Princess Margaret Cancer Centre, UHN** Toronto, ON
Web Interface Developer *May 2016 – Sept. 2017*
 - **Product Design:** Worked with a small team in designing PharmacoDB, a web application for mining and cross-analyzing large-scale pharmacogenomic datasets. Made decisions on app features, implementation tools, reflected users' feedback on product, defined priorities through timelines for short-term/long-term goals etc.
 - **Database:** Built and maintained a MySQL database to store all manually curated pharmacological data collected from datasets. Constantly sought to improve logical design, applied proper indexing etc. for efficient querying.
 - **Back End:** Wrote PharmacoDB back-end using Ruby on Rails, version controlling implementation with Git.
 - **Front End:** Implemented app front-end using HTML/CSS, JavaScript, and used Plotly.js to generate various charts and drug dose-response curves.
 - **API:** Built an API in Go, restfully exposing all pharmacogenomic data available in PharmacoDB, and enabling researchers, clinicians, scientists etc. to seamlessly integrate/use PharmacoDB data in their work.
 - **Published Paper:** Co-authored a paper on PharmacoDB that got published by the Nucleic Acids Research database issue: <https://academic.oup.com/nar/article/4372597>

PROJECTS

- **Cellosaurus API** <https://cellosaur.us>
github.com/assefamaru/cellosaurus-api *Jun. 2016 – Present*
 - Developed an unofficial Restful API for Cellosaurus - a knowledge resource on cell lines with comprehensive annotations for use within biomedical research.
 - Implemented the API in Go, using the Gin framework for routing.
 - Built a MySQL database to store all data provided by Cellosaurus, and make available via the API.
 - Wrote a text-to-csv converter in Racket to parse Cellosaurus' text file data by transforming it into csv.
- **Kidane Mihret EOTC** <https://kidanemihret.org>
github.com/assefamaru/kidanemihret *Dec. 2015 – Present*
 - Developed web application for my local church, Kidane Mihret Ethiopian Orthodox Tewahedo Church.
 - Implemented app server-side using Ruby on Rails, and built site support for both Amharic (native language) and English, using Rails I18n.
 - Built a separate back-end app to keep track of members and church inventory.

LINKS

- **GitHub:** github.com/assefamaru **Twitter:** twitter.com/assefamaru
- **StackOverflow:** [/users/4739247/assefamaru](https://stackoverflow.com/users/4739247/assefamaru) **LinkedIn:** [/in/alexandermaru](https://in.linkedin.com/in/alexandermaru)

SKILLS

- **Languages/Frameworks:** Racket/Scheme, C/C++, Go, Ruby, HTML, CSS/Sass, JavaScript, Bash, SQL/MySQL, Java, jQuery, Bootstrap, Rails, Angular
- **Visual Design:** Adobe Photoshop, Illustrator
- **Other Technologies:** Git, GitHub, Slack, AWS, Heroku, Cloud9, Unix/Linux
- **Natural Languages:** Fluent in English and Amharic, with backgrounds in Swahili and Spanish.