# Trisdan Leyson

2343 Kirkham St.

San Francisco, CA. 94122

(530) 692-9040

[**trisdan.leyson@gmail.com**](mailto:trisdan.leyson@gmail.com)

**Career Objective:** To work in a position involving research in machine learning and big data, using cutting-edge tools.

## 1. Education

* **Bachelor of Science, Computer Science. University of California, Davis.**
  + Completed December 2014.
* **Associate of Arts, Arts and Humanities. Yuba College.**
  + Completed July 2011.

## 2. Selected Projects

* **Compiler for the Cool Programming Language**
  + **Lexing and semantic analysis phases. Lexing phase used Flex to implement the lexical scanner for a compiler for the Cool programming language. Semantic analysis phase implemented provably sound, object-oriented static type system for Cool similar to Scala’s.**
  + **Tools**: C++, Flex, make, SPIM and MIPS.
  + **Skills**: Regular expressions, object-oriented design, type systems.
* **Robot arm control system**
  + Code at <http://github.com/tsleyson/JointMove>.
  + Object-oriented interface to an industrial robot arm. Abstracts the hardware interaction and allows the user to guide the robot through method calls.
  + **Tools**: C++.
  + **Skills**: Low-level programming, object-oriented design.
* **Sound Change Modeler**
  + Code at <https://github.com/tsleyson/PySounds2>.
  + Used for hobby language creation to simulate the way the sounds of languages change over time. Given a file of sound change rules in a format familiar to linguists, reads the file, translates the rules into regular expressions, and applies the regular expressions to a provided list of words.
  + **Tools**: Python.
  + **Skills**: Regular expressions, scripting, GUIs (TKinter), Unicode.
* **Document preparer for Amazon Kindle publishing**
  + Code at <https://github.com/tsleyson/kindle_pub_formatter>.
  + Transforms HTML files automatically generated by a program like LibreOffice into a single HTML file suitable for publication through Amazon's Kindle Direct Publishing. Configuration files are written in Clojure and executed using the reader. Can be extended with different functions for identifying page elements such as headings and paragraphs, and for cleaning up extra tags included in the HTML by the generating program.
  + **Tools**: Clojure, Enlive, HTML, Emacs Lisp.
  + **Skills**: HTML, Cascading Style Sheets, Unicode.

## 3. Employment History

### 3.1 January 2014 ­– May 2014

* **Yuba College Writing and Language Development Center.**
* **Position**: English and ESL Tutor
* **Duties**:
  + Worked closely with students to refine language, analytical, and rhetorical skills.
  + Interpreted instructor comments and assignments and communicated this understanding to students.
  + Kept careful records of activities within the center using the AccuTrack and TutorTrac systems.
  + Modeled good student behavior.
  + Created a tutorial for students to learn to use the account-linking features of their Yuba College campus email. (Available at [tsleyson.github.io/WLDC-email-forward/index.html](#tsleyson.github.io-WLDC-email-forward-i).)
* **Reason for leaving**: Time-limited position.

### 3.2 January 2009 – May 2011

* **Yuba College Writing and Language Development Center**
* **Position**: English and ESL Tutor
* **Duties**: See above.
* **Reason for leaving**: Left to become full-time student at UC Davis.

## 4. Skills

* Python (3 years), C++ (3 years), Java (2 years), Clojure (1 year)
* Recently began learning the Clojure web stack: Ring, Compojure, Enlive, JDBC.
* Recently began learning PostgreSQL.
* Small amount of familiarity with NumPy.
* Proficient writer; maintain a technical blog, The Poetry of Computer Science ([http://porgionesanke.wordpress.com](http://porgionesanke.wordpress.com/)).
* Native English speaker; basic fluency in Spanish; novice in Japanese.

## 5 Additional Activities

* Linguistics, especially typology.
* Mathematics and statistics.
* Writing stories, articles, and essays.
* Reading classical literature, history, philosophy, and popular science.