

ALONA VARSHAL

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TECHNICAL SKILLS

Proficient	JavaScript, Node.js, Express, Sequelize, React-Redux, Python, Pandas, Numpy, Jupyter Notebook, HTML, Git, GitHub
Knowledgeable	Mocha, Chai, Scikit-learn, CSS, Flask, Jekyll, Liquid, principal component analysis (machine learning), PostGreSQL, SQLite, Matplotlib, SQL, jQuery
Some experience	Heroku, Amazon AWS, MongoDB, R, SQLAlchemy, Ruby

PROJECTS

- MyFlix**, team project May 2018
Enables movie streaming to any device in local area network
- Created with Electron and React, deployed as an app for Windows, Mac, and Linux
 - Implemented with Agile engineering management, facilitated with GitHub Projects
 - Owned creation of the video player and the custom video control components
- Portfolio**, solo project May 2018
Personal website created using Jekyll, developed in local environment and deployed on GitHub
- Austin, TX E. coli Reader**, solo project October 2017
Renders interactive Google map of concentrations of E. coli of in Austin, TX creeks
- Scrapes E. coli readings from open data portal and show them on a Google map, enabled by Socrata
 - Built with Flask and Python (a corresponding clone was created with React, not deployed)
 - Data analyzed with pandas
- Wrangling Data from OpenStreetMap**, solo project January 2017
Extracted information about published locations (street addresses, businesses etc.), including geolocation
- Data gathered using Python
 - Python scripts created to automatically extract data from XML files
- Classification of Wines by Array Sensing**, solo project September 2017
Machine learning analysis of wine varietals response to chemical sensor arrays
- Analysis done with PCA in Python and Jupyter Notebook
 - 3-D plots created with matplotlib
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PROFESSIONAL EXPERIENCE

- ENTEGRIS, INC.** 08/2012 - 07/2015
Chemist Burnet, TX
- **Managed lab computer upgrades** (XP to Windows 7) with minimal impact in product turn-around-times
 - **Created Excel macros to automate data transfer** from lab instruments to lab info management systems
 - **Filed and passed** ISO 17025 laboratory accreditation for analytical chem lab and saved cost by self-training
 - **Trained new lab personnel**, wrote and edited about 50 work manuals and operating procedures
- TEXAS DEPARTMENT OF STATE HEALTH SERVICES** 02/2011 - 08/2012
APHL Fellow, Chemical Threat Lab Austin, TX
- **Developed** a method to quantify metabolites of smoke inhalation injury
 - **Presented laboratory results** in APHL meeting
 - Facilitated and assisted with operations of a chemical threat lab for the CDC's Laboratory Response Network
- COLLEGE OF NATURAL SCIENCES, UT AUSTIN** 01/2007 - 01/2011
Research Educator Austin, TX
- **Used machine learning techniques to analyze data** to optimize chemical array sensors
 - **Designed and developed the curriculum** to teach undergraduate students basic chemistry, peptide synthesis, spectroscopic assays, and **multivariate data analysis / machine learning**
 - **Directed and trained** about four to five groups of about 30 students, one to two graduate assistants, and 3-5 undergraduate mentors per semester
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EDUCATION AND TRAINING

Fullstack Academy of Code, Remote Software Engineering Immersive
PhD Chemistry, Texas A&M University, College Station, TX USA
BS Chemistry, University of the Philippines at Los Banos, Laguna, Philippines
Using Python for Research, HarvardX, edX, [certified](#)
Introduction to Computing using Python, GTx, edX, [certified](#)