

# Alona Varshal

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## SOFTWARE DEVELOPER

Passionate about clean code and technically-sound solutions to problems in software development.  
Results-driven, collaborative, scientific-oriented.

## TECHNICAL SKILLS

**Proficient:** Python, numPy, pandas, Jupyter Notebook, Git, PostgreSQL, HTML, CSS, JavaScript, Node.js, Express, Sequelize, React, Redux, Mocha, Jasmine, Chai, Heroku  
**Knowledgeable:** Electron, Flask, SQLite, scikit-learn, SQL, Gatsby.js, Jekyll, AWS, MongoDB, R, SQLAlchemy, GraphQL, React Native

## PROJECTS

**Water Quality ATX**, personal project

*Flask web app rendering interactive Google map of E. coli readings in Austin, TX creeks, aquifers and lakes*

- Analyzed data from Austin open data portal using pandas and matplotlib in Jupyter Notebook
- Wrote Python script to fetch data from Austin Open Data Portal
- Used CSS and Flexbox to style HTML, deployed on Heroku

**CenTexAIR**, project for Central Air Force of Central Texas

*Mobile app currently being developed using React Native*

- Constructed code to fetch data using API, taking advantage of async-await/promises
- Creating front end based on prototype created by UX designer

**Clean Air Force App**, ATXHack4Change (hackathon)

*React.js web app deployed on Heroku showing air quality data for Austin, TX*

- Created script to fetch data using API, async-await while resolving CORS issue
- Awarded Most Sustainable Honorable Mention, ATXHack4Change 2018

**MyFlix**, Fullstack Academy Capstone Project

*Electron and React desktop app streaming media on local area network*

- Created the video player and custom video control components (React.js)
- Implemented with Agile engineering management, facilitated with Github Projects

**Discrimination of Wine Varietals by Array Sensing**, FRI UT Austin project

*Machine learning of wine varietals' response to chemical sensor arrays*

- Chemically synthesized sensor arrays, gathered data using spectroscopic techniques
- Analyzed data using PCA with Python, pandas, numPy, matplotlib, and scikit-learn

## EDUCATION

**Fullstack Academy of Code** | Remote Software Engineering Immersive | May 2018

**Texas A&M University** | Doctor of Philosophy | College Station, TX USA | July 2004

**University of the Philippines** | Bachelor of Science | Los Banos, Philippines | July 1999

## PROFESSIONAL EXPERIENCE

**Freelance Web Developer**

06/01/2018 - present

- Participated in hackathons such as AngelHack, ATXHack4Change
- Currently creating a website for a non-profit group using React-Native

**Chemist | Entegris, Inc | Burnet, TX**

08/2012 - 07/2015

- Managed computer upgrades (XP to Windows 7) with minimal impact to turn-around-times
- Filed and passed ISO 17025 laboratory accreditation for analytical chem lab
- Trained new personnel, wrote and edited about 50 standard operating procedures

**Fellow | Association of Public Health Laboratories | Austin, TX**

02/2011 - 08/2012

- Developed a method to quantify metabolites of smoke inhalation injury
- Facilitated and assisted with operations of a chemical threat lab for the CDC

**Research Educator | FRI, UT AUSTIN | Austin, TX**

01/2007 - 01/2011

- Used machine learning techniques to analyze data for optimizing chemical array sensors
- Designed and developed the curriculum to teach undergraduates basic chemistry, peptide synthesis, spectroscopic assays, and multivariate data analysis