Justin Mi

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Education

University of California, Berkeley Berkeley, CA
BS, Electrical Engineering and Computer Science *August 2016 to May 2020*
Coursework: Structure of Computer Programs, Designing Information Systems and Devices, Multivariable Calculus

Archbishop Mitty High School San Jose, CA
Graduated with honors *August 2012 to May 2016*
GPA: 3.95. SAT: 2380. Awards: American Invitational Math Exam (AIME) qualifier, Interstellar National Math Competition Quarterfinalist, US History Bee National Championship Qualifier, St. Francis of Assisi Service Award

Experience

Berkeley Institute for Data Science Berkeley, CA
Undergraduate Researcher *September 2016 to Present*
- Used machine learning methods (clustering, random forest, regression, PCA) to identify traits of invasive species
- Used data mining methods such as web scraping (BeautifulSoup) to parse, and clean publically available species data.
- Classified over 3000 species using machine learning, reducing the need for expert analysis and manual classification
- Achieved a classification accuracy of 95% for at-risk plants in the United States, Australia, and the Pacific islands
- Integrated the algorithm with an interactive web framework to automate and visualize the classification process

NASA Ames Advanced Studies Laboratory Mountain View and Santa Cruz, CA
Research Intern *June 2015 to August 2015*
- Characterized and modeled the electrical features of thin film for memristive applications relating to solar energy
- Ported over obsolete technology using LabVIEW and programming to be used by modern laptops and computers
- Developed data analysis and statistical analysis methods to characterize electrical characteristics of thin film
- Automated the thin film measurement process using LabVIEW, enabling remote access of the measurement system
- Detected and demonstrated memristive properties for zinc oxide thin films to be used in solar cell applications

Mitty Summer Robotics Class San Jose, CA
Student Teacher *June 2014 to August 2014*
- Developed and taught electrical engineering and basic programming using VEX robotics to 20 elementary school kids
- Created and led an end-of-session competition and showcase to 20 kids ranging from 7 to 12 years old

Projects

Dorm Ex Machina – Won 1st place in Robotics@Berkeley's 2016 invention competition. Built a Arduino robotic system that uses RFID and Bluetooth technology to track whether a user has forgotten their belongings (keys, wallet, phone) in their room. Used CAD and 3D printing for rapid prototyping; created a "Find My iPhone"-like app as a hub for the user to retrieve forgotten belongings. *Github: http://bit.ly/2eqwdQH*

Yelp Maps – Created a visualization of restaurant ratings using machine learning and the Yelp academic dataset. Used k-means clustering as an unsupervised learning algorithm and a Voronoi diagram to visually group restaurants based on common features. Used simple least-squares regression as a supervised learning algorithm to predict user ratings for similar restaurants based on the ratings they gave to previous restaurants.

Extracurricular Activities

Phi Beta Lambda – *Web Development Project Manager* Berkeley, CA, *September 2016 to Present*
- Conducted market research on over 100 members in order to formulate targeted tech solutions for club operations.
- Worked on a project team of 8 to create web-based solutions such as a custom-built wiki and user portal

Sacred Heart Community Service – *Volunteer Organizer* San Jose, CA, *August 2012 to May 2016*
- Organized the Pack-a-Back school supply drive for 2,800 low-income elementary school students in Santa Clara County
- Assisted Mandarin-speaking families in applying for services, Prepared and distributed food to families in need.

Camp Krem Outdoor Camp – *Counselor* Boulder Creek, CA, *August 2015 to August 2016*
- Organized and facilitated learning activities for 40 developmentally disabled children, teens and adults (campers).
- Developed and organized an end-of-session prom night that was adopted as an official activity for the campers.

Skills & Qualifications

Skilled – Python (*NumPy, SciPy, pandas, scikit-learn, BeautifulSoup*), Java (*SE and EE*), LaTeX (*XeLaTeX*), CAD (*Solidworks, AutoCAD*), Git, Scheme, SQL, Mandarin Chinese (*reading, writing, speaking*)
Proficient – LabVIEW, web development tools (*HTML, CSS, Javascript, Bootstrap*), Lisp, RubyOnRails