Victor Chan

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EDUCATION

University of California, Berkeley — Graduating 2019
B.S. Electrical Engineering and Computer Science — GPA: 3.88 / 4.0
Regents' and Chancellors' Scholar, National Merit Scholar, Cal Alumni Association Leadership Scholar
Courses: Algorithms (CS170), Internet Architecture (CS168), Machine Structures (CS61C), Randomness/Probability (EE126); Computer Programs, Discrete Mathematics, Information Systems, Linear Algebra/Differential Equations, Data Structures

Dougherty Valley High School — Aug 2012 – June 2016
GPA: 4.83, SAT: 2400

EXPERIENCE

Intertrust Technologies Corporation — **Sunnyvale, CA**
Software Engineering Intern — May 2017 – August 2017
- Optimized client request handling and resource allocation by developing ARIMA model to forecast future request counts
- Performed PCA dimensionality reduction (scikit-learn) on .csv dataset to reduce file size and computation time by over 34x
- Clustered, using k-means and OPTICS, 6-D unlabeled sensor data for 160 wind turbines (pandas, pyclustering, sklearn)
- Assigned labels to 6 main clusters with LSTM; used labels to predict windmill functionality from our client's sensor output

Data Science Society at Berkeley — **Berkeley, CA**
Career Development Officer, Case Study Data Analyst — January 2017 – Present
- Partner with FairVote to isolate trends in Bay Area election data to analyze effectiveness of Instant Runoff Voting
- Program election modeling software (Python/R) based on San Francisco elections to compare various voting paradigms
- Network with professionals to organize resume/interview workshops and annual Data Science Forum (700 attendees)

Launchpad — **Berkeley, CA**
Quadcopter Machine Learning Project — August 2017 – Present
- Develop machine learning software for quadcopters to travel from one point to another while avoiding obstacles
- Implement ROS Kinetic drone simulations on Gazebo Sim, with OpenCV image processing for stereo camera input

Discrete Mathematics and Probability (CS70) — **Berkeley, CA**
Reader — January 2017 – present
- Devise problem sets on topics such as polynomial interpolation and graph theory for 800 CS70 students
- Hold office hours to guide ten students a week through questions about homework and course material
- Organize, host, and tutor at cumulative review sections before midterms and finals to prepare students for exams

MakerFunc Innovation Camp — **Suzhou, China**
Robotics Instructor — July 2017 – August 2017
- Developed Robotics Sensors and Programming curriculum for high school students at a summer tech camp in Suzhou
- Led two weeks of classes and workshops, during which 10 students built and programmed complex drones and VEX robots

SELECTED INDEPENDENT PROJECTS

Monument Crisis Center: *Volunteer Mobile Application Developer*
During my senior year of high school, I volunteered to develop a free open source interface for MCC's clients, volunteers, and donors to discover news and register for classes and events. I coded the app in Lua to pull information from an RSS feed on MCC's website. By programming the app, I gained experience in mobile development across multiple platforms.

Personal Projects
- *DMS:* Safety mobile app to email emergency contacts if preset alarms are triggered (Expos, Sparkpost API, Node.js)
- *YouTube Controls:* Chrome Extension to control video speed and skipping, developed for lecture webcasts (jQuery)
- *Twitter Sentiment:* Analyze tone of tweets from Twitter Stream API with IBM Watson to plot US emotional distribution

SKILLS & INTERESTS

- **Programming Languages (advanced):** Java, Python, C, C++, Lua, R, Spark, SQL, JS, jQuery, NumPy, Pandas, sklearn
  Additional Skills: Git, CAD, AWS, Atlassian Tools, Agile, Linux, Robotics, Cybersecurity, Big Data, Machine Learning
- **Languages (fluent):** English, Mandarin, Cantonese
- **Organizations:** Cal Parkour (TA), Acts 2 Fellowship Church, DISCiples IM Ultimate Frisbee Team
- **Interests:** Parkour/Freerunning, Freestyle Rap, Chess, Rubik's Cubes, Distance Running, Piano
  I love using my 11x11 Rubik's cube to create images for special occasions: tinyurl.com/rubikscubespictures