Wei Tung Chen

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EDUCATION

University of California, Santa Barbara   **Expected Graduation: June 2020**
- **Computer Science, B.S.** Honors Program
- **Completed Coursework**: Data Structure and Algorithms, Operating Systems, Database Systems, Computer Networks, Undergrad CS Tutoring, Automata and Formal Language (Audit: Database Systems II)

WORK EXPERIENCE

Software Engineering Intern at Redfin (Seattle, WA)   **Jun – Sep 2019**
- Redesigned Redfin's production machine access system from a labor-intensive, unsecure architecture to a new system that has proven to be more secure, scalable, monitorable, and 90% more efficient.
  - **Efficient:** Replaced the manual access-granting workflow (requiring IT ticketing and code changes from engineering teams) with an automated system that takes access request submissions, Slacks for approval, and grants user access by auto-configuring SSH certificate and proxyjump on user machine in seconds.
  - **Secure:** Leveraged SSH certificate's principal name matching technique to restrict user access to a subset of machines, which reduced the security risk of exposing all machines at once to unwanted hands.
  - **Monitorable:** Tracked access footprints by assigning each certificate with a serial number mapped to an access request record in database. SSH can also be configured to revoke certificates with serial numbers.
  - **Planning:** Wrote a technical doc that outlines current system's problems, implementation strategies, and a plan to test and rollout safely. Worked with technical leads to weigh the pros and cons of different strategies for an initial plan, and gave them periodic product updates later on for more feedback.

Software Engineering Intern at ProDIGIQ (Thousand Oaks, CA)   **Jun – Sep 2018**
- Developed a web tool that allows engineers to visually draw polygon markups on airport maps instead of manually crunching latlng coordinates into the database. The tool saves them a lot of time as a result.
- Led the development of the React Native app in an effort to reduce the cost of developing cross-platform mobile application. Designed and built out main screens, scalable navigation logic, and backend API wrappers, with extensive documentations on important project details for future engineers.

Software Engineering Intern at Lacework (Mountain View, CA)   **Jul – Sep 2017**
- Built the first testing framework for Lacework engineers to automatically test and validate backend API calls against the db schema, all through a simple webpage that allows engineers to run tests with customizations on different test scopes, parameters, and testing frequency.

Web Developer at UCSB Marine Science Institute (Santa Barbara, CA)   **Apr – Jun 2019**
- Modernized department website with newer web tools to make the website cleaner and more maintainable.

RELEVANT PROJECTS

React Native Rideshare Class Project – Gaucho Rides   **Apr – Jun 2018**
- Designed and developed a ridesharing app that uses a map-based search algorithm to find matching rides for students. For student safety, a peer rating system is also used to provide passengers' trust of students' driving.
- Familiarized teammates with mobile app development and assisted them in debugging any blocking issues.

Data Science Club Project – Course Enrollment Analysis   **Jan – Sep 2018**
- Built a website that graphs out enrollment rate over the course registration period and helps college freshmen identify popular courses, so they can pick them with priority and be on track to graduate in time.

SKILLS

- **Languages**: Java, Python, JavaScript (React), C++, Bash Script, SQL, Ruby (Rails), Android, Node.JS
- **Tools**:   Git, SSH, Docker, Slack API, Jenkins, Puppet