

BRIAN LYU

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EDUCATION

University of California, San Diego

Graduation: March 2018

Major GPA: 3.51

- **Degree:** Bachelor of Science, Computer Engineering
- **Honors:** Warren College Provost Honors

TECHNICAL PROFILE

- **Programming:** Java, C++, SQL/MySQL, HTML, CSS, JavaScript, Bash, Autolt, Node.js
- **Software Tools:** PuTTY, Vim, GitHub, XCode, Android Studios, Eclipse, AquaData Studio,
- **Concepts:** Agile Development, Software Design Patterns, UI/UX Design, Git Version Control

EXPERIENCE

Unisound, SD Hacks

September 2016

Team Member

- Designed the frontend appearance and experience of a music app, in which multiple users can immediately collaborate on a group playlist by adding songs to a private queue room.
- Utilized Last.fm API for track searching and account information, and JSON to serialize data from the backend servers.

Business Application Development Group, UCSD School of Medicine

June 2016 – Present

Programmer Analyst Intern

- Assisted in developing business software systems, web applications, and analytic reports for internal company operations.
- Built SQL queries with joins, grouping, and aggregations to manipulate and migrate datasets from extensive databases.
- Wrote Bash scripts and integrated MySQL queries to perform company data validations and database test checks.
- Wrote Autolt scripts to test the functionality of web and software applications, while automating working status reports.

PROJECTS

FlagBot Mechanical Robot

April 2016 – June 2016

- Constructed a DC-Motor powered robot, capable of multidirectional movement and location awareness. Managed and lead the development of both the computer science and hardware circuit components of the robot.
- Developed a mobile remote control to wirelessly send control signals to the robot via a HC-06 Bluetooth.
- Employed Arduino Uno to program the robot's movement, speed, and a flag waving mechanism for club advertisement.

Couple Tones

March 2016 – May 2016

- Developed a location-based Android mobile app, providing push notifications when contacts visited certain locations.
- Utilized the Google Maps API, where users could select a specific location on the map and pin it as a "favorite".
- Used JIRA for issue delegation, as well as Agile development methods such as iterations, user stories and tasks.

Dictionary AutoComplete & Spell Check

November 2015 – December 2015

- Enhanced an autocomplete/spell check algorithm designed to list out possible word completions for an input prefix.
- Utilized a Multiway Trie for efficient search and insertion, decreasing original prefix search time by 80%.

EXTRACURRICULAR ACTIVITIES

Theta Tau, Professional Engineering Fraternity

April 2016 – Present

- Planned professional development and networking events for students during member recruitment, including resume workshops, mock interviews, and presentations from alumni within the engineering industry.

Mandarin Language and Cultural Center

August 2012 – June 2014

- Utilized management skills as assistant teacher; tasked with designing weekly lesson plans and group discussion activities.