B R I A N   L Y U

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EDUCATION

University of California, San Diego   **Graduation: March 2018**

- **Degree:** Bachelor of Science, Computer Engineering   **GPA: 3.49**
- **Honors:** Warren College Provost Honors

TECHNICAL PROFILE

- **Programming:** Java, C++, SQL/MySQL, HTML, CSS, JavaScript, Bash, AutoIt, 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

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 interacted with MySQL database to perform data validations and generate working status reports.
- Enhanced AutoIt scripts to test the functionality of web and software applications, and manage employee effort reports.

Unisound, SD Hacks   **September 2016**

Developer

- Designed and implemented the frontend experience of a music application using Node.js and Express, that allows users to collaborate on a group playlist by adding songs to a private queue room.
- Utilized Last.fm API for track searching and user account information, and JSON to serialize data from backend servers.

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 that provides push notifications when contacts visit certain locations.
- Interacted with the Google Maps API to let users select a specific location on the map and pin it as a "favorite".
- Used JIRA for issue delegation, and 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.