

SUMEET BANSAL

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EDUCATION

University of California, San Diego

BS, Mathematics-Computer Science, Provost Honors

La Jolla, CA

December 2019

Relevant Coursework:

CSE 12 Data Structures and Object-Oriented Design

CSE 15L Software Tools and Techniques

CSE 20 Discrete Mathematics for Computer Science

CSE 21 Mathematics for Algorithms and Systems

CSE 30 Computer Organization and Systems Programming

CSE 100 Advanced Data Structures

ECE 140 The Art of Product Engineering

MATH 189 Exploratory Data Analysis and Inference

EXPERIENCE

Actiance

Redwood City, CA

Engineering R&D and Product Management Intern

June 2017 to September 2017

- Led a team of three interns in developing an independent anomaly detection project (<https://git.io/vd0Wi>).
- Developed a diagnostic service that significantly shortened development and deployment cycles by ensuring parity across multiple product sites' server configurations.
- Automated processes for generating data stores of entire product sites' server configurations.
- Created a flexible MongoDB-based query engine that generates detailed statistical server analyses and later migrated the entire project to a fully functional SQL-based implementation.
- Integrated the query engine with a responsive web interface using AngularJS interacting with a Java servlet.
- Oversaw company-wide deployment and adoption across different teams, domestic and international (e.g. Engineering, Network Operations, QA).
- Presented well-received demos to many senior executives, including the CEO. Incorporated feedback and added requested functionality for specific use cases.
- Worked with Program Management to migrate programs to the BigPicture application for improved risk assessment, swim lane progress updates and milestone planning.

Zscaler

San Jose, CA

Emerging Technologies Intern

June 2016 to August 2016

- Developed a web visualization of global cyberthreats using live server data.
- Processed server data stream and systematically classified and prioritized various cyberthreats.
- Used the Google Maps API to project parsed threat data onto constantly-updating map.

PROJECTS

Last.fm Spelunker

<https://git.io/vd0WS>

- Generates an exhaustive SQL database of a user's listening history and related info through the last.fm API.
- Identifies historical patterns in listening habits (e.g. seasonal preferences for artists or genres).
- Graphs listening statistics, long-term trends (through streamgraphs), and connections between related artists (through hierarchical edge bundles) using the D3.js data visualization library.

Triton Scheduler

<https://git.io/vd0WQ>

- A Chrome extension to easily populate Google Calendars with academic schedule for the quarter.
- Uses web scraping to parse and clean schedule data from the online WebReg class registration tool.
- Handles the user authentication and authorization process through the OAuth 2.0 protocol.
- Adds all academic events from the registration tool to Google Calendar via the Google Calendar API.

EXTRACURRICULAR ACTIVITIES

Students for the Exploration and Development of Space (SEDS)

San Diego, CA

Software Developer

September 2017 to Present

- Active member of the Colossus project, a NASA-funded static fire test stand having a net worth of \$330,000.
- Worked on the data acquisition system to automate the sequence of actions required to obtain reliable thrust readings, design a highly-redundant system with numerous background and safety checks, and develop data loggers and a responsive user interface.
- Developing an analytics platform designed to benchmark and study tested rocket engines.

Webmaster

January 2018 to Present

- Responsible for the design and maintenance of the organization's website (sedsucsd.org).

FRC Team 1351 – TKO

San Jose, CA

Mentor, former Project Lead

September 2012 to Present

- Provided input on robot design, overall team strategy, and software design.
- Participated in design reviews for various robot subsystems and post-competition SWOT analysis.
- While a project lead, managed several team members, had complete autonomy in designing multiple vital subsystems, and had significant input on high-level design and strategy as a core member.

SKILLS & QUALIFICATIONS

Languages – Java, Python, C, SQL, JavaScript, C++, R, ARM Assembly, Shell

Technologies/Frameworks – MongoDB, jQuery, Node.js, D3.js, Flask, Git