SUMEET BANSAL

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EDUCATION

University of California, San Diego   La Jolla, CA
BS, Mathematics-Computer Science, Provost Honors   *December 2019*

Relevant Coursework:

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
CSE 101	Design and Analysis of Algorithms	CSE 105	Theory of Computability
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.
- Identifes 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-redudant 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, Express.js, D3.js, Django, Flask, Git