Vansh Singh

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EDUCATION

UCSD, Jacobs School of Engineering
- *Computer Science (B.S. from Computer Science and Engineering Department)*
- Regents Scholar and Provost Honors with 3.9 GPA
- Expected Graduation: June 2019

WORK

Full Stack Software Engineering Intern, *Classy*   June 2017 - September 2017
- Designed, tested, implemented, and integrated the Classy SimpleSearch API, an abstraction layer encapsulating access to our ElasticSearch clusters
- Contributed React Components to Classy-Components, a library for front-end development used at Classy
- Maintained and updated the primary super-admin internal tool for the customer service department using AngularJS, Node, and Express
➢ ES6/7, Node, Express, AngularJS, ServerlessJS, React, React-Router, Mocha, Chai, Enzyme, Jest, REST, ElasticSearch

Financial Analyst Lead Intern, *Reality Shares*   September 2016 – January 2017
- Created an application that automates the calculation of a predictive market-strength indicator that forecasts long-term market downturns
- Saved 30 man-hours of work per month in a small company of just ~10 full-time employees
- Utilized HighCharts and D3.js to make and maintain data visualization tools on website
➢ Java, Bloomberg API, JavaScript, jQuery, D3.js, HighCharts, HTML5/CSS3

Tutor for Data Structures and Unix Lab, *UCSD Computer Science & Engineering Department*   June 2016 – Present
- Mentored students in their implementations of Object-Oriented polymorphic containers including Hash Tables, Trees, Linked Lists, and Stacks, in C, C++, and Java
- Taught software engineering tools such as Git, IDEs, Unit testing, Make, Ant
➢ C, C++, Java, Data Structures, BASH, Git, Make, Ant, Eclipse,GDB, Valgrind, Linux, JUnit

Video Coding Researcher, *UCSD Electrical & Computer Engineering Department*   January 2016 – May 2016
- Made video editing tools using ffmpeg and x264 tools/APIs
- Created video compression algorithms and tools from scratch in C, C++, and Bash
➢ C++, Bash, Make, x264, ffmpeg

PROJECTS

Development of Hindi and Marathi (NLP research project), *Project Lead*   April - June 2017
- I lead a team of four in researching Hindi and Marathi's similarity to Sanskrit in order to better understand their divergence (*https://github.com/vanshcsingh/indic-lang-development*)
- Analyzed phoneme frequencies to gauge how similar they sound today compared to elder indic languages
➢ Python, NLTK, Machine Learning

Lynx Analytics, *Lead Developer*   October 2016
- I led a team in creating a tool that parses news articles of a company and synchronizes their data and sentiment with the peaks and troughs with its stock price in an interactive chart
➢ Alchemy, Node, Express, jQuery, Bootstrap, Twilio, Heroku, HighCharts, LESS, CSS3, HTML5,

EMG Pong Game, *Co - Developer*   January - April 2016
- Created a pong video game remote for the handicapped where the paddle is controlled from forearm flexions
- Application involved low/high pass filtering, signal rectification, power smoothing, calibration
➢ ISRs, Python, C, Networking, EMG, Numpy, Scipy, Matplotlib, AnyDBM, PySerial, Arduino