

Vansh C Singh

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EDUCATION

B.S. in Computer Science, UCSD Jacobs School of Engineering

- Regents Scholar and Provost Honors with 3.9 GPA
- Expected Graduation: June 2019
- Seeking SWE internship for Summer 2018

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, 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

EventLit, Lead Software Developer

January - March 2017

- Led the software development efforts in a team of 10 in making an android application where students can centralize their events from school organizations and clubs
- Android, Firebase

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