

Siddharth Patel



EDUCATION

- Purdue University | B.S. in Computer Science | GPA: 3.83 Jan 2016 – Dec 2018
- **Related Coursework:** Data Structures & Algorithms | Systems Programming | Design & Analysis of Algorithms | Computer Architecture | Operating Systems | Web Application Development
- Rutgers University | B.S. in Computer Science | GPA: 3.68 Jan 2014 – Dec 2015

WORK EXPERIENCE

- Teaching Assistant Purdue University Jan 2017 – May 2017
- Lab mentor and grader for course: CS 251 - Algorithms and Data Structures
- Software Verification Engineer Delphi Aug 2016 – Nov 2016
- **Developed plugins** with a toolset that monitored and sent CAN serial messages through USB ports
 - Verified message requirements from the Product Definition Specification
- Peer Tutor Rutgers University Jan 2015 – Aug 2015
- **Tutored** introductory **Python Programming, Discrete Math**, Physics and all Math courses up to Calculus 2

INDEPENDENT PROJECTS

- 1) Iterate (*ongoing*) | **HTML, CSS, JavaScript, Node.js, Vue.js**
 - Developed a **web application** from scratch that allows users to plan their vacations by simply providing budget, origin, departure and return dates.
 - Used **Amadeus, Google Maps, Google Places** and **Yelp APIs** to create detailed itineraries providing flight details, places to stay, eat and things to do around during your stay along with prices and reviews for all.
- 2) Chorus | **HTML, CSS, JavaScript, Flask, Python**
 - Developed a **web application** that allows people to vote on next song to be played. Using Spotify and Facebook auth, we get user's playlist and relieve the DJ stress of selecting songs.
 - Designed backend architecture for the application using **Flask** and used **Spotify APIs**.
- 3) Simple File System for UNIX | **C, FUSE**
 - Implemented driver for **file system** in virtual drive on UNIX, to be used as filesystem in user-space (**FUSE**). This filesystem mounts a regular directory onto a mount point to appear as regular filesystem where one can **read/write/create files, directories, symbolic links and hard links**.
- 4) Simplified Linux Shell | **C, C++, LEX, YACC**
 - Implemented scanner and parser for the shell with **LEX** and **YACC**.
 - Implemented simplified Linux shell from scratch that provides similar functionality as Bash, like, **IO redirection, execution of simple commands, file redirection**.
- 5) Web Server | **C, C++**
 - Developed a web server application which users can use to host their website on any computer using different concurrency modes. Learnt about **HTTP requests, socket programming and concurrency modes**.
- 6) Burrows-Wheeler | **Java**
 - Developed an application using **Burrows-Wheeler** data compression algorithm to compress files. The implementation **reduces compression size by a factor of 3** as compared to PKZIP and gzip.

SKILLS AND TECHNOLOGIES

Java, C, Python, Flask, Shell, x86 Assembly, ARM, Git, HTML, CSS, JavaScript, Node.js, Vue.js, SQL (familiar)