Siddharth **Patel**

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siddharthpatel

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 | Operating Systems | Web App Development | (Spring'18): Machine Learning & Data Mining, Compilers

Rutgers University | B.S. in Computer Science | GPA: 3.68 — Jan 2014 – Dec 2015

WORK EXPERIENCE

Software Engineering Intern — PayPal — May 2018 - Aug 2018

- Accepted Software Engineering Intern Position at PayPal for Summer 2018

Teaching Assistant — Purdue University — Jan 2017 – Present

- CS 251-Algorithms and Data Structures, CS 252-Systems Programming: Lab mentor and grader for course

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

INDEPENDENT PROJECTS

1) Itinerate (*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, Scala (beginner)