Vihar Patel

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vi-code.github.io

Education

Purdue University, West Lafayette, IN
BS, Computer Science with specializations in Machine Learning, Software Engineering and Information Systems

Skills & Abilities

Programming skills: Java, C/C++, ARMv8 assembly, **Python**, SQL, **NoSQL**, Go, **R,** JavaScript
Software tools: Eclipse, Vim, Visual Studio, Rest API, Git, Pivotal Tracker (AGILE)
Technical skills: Complex algorithms analysis and problem solving, Testing and debugging, Memory and throughput optimization, Systems programming, **Relational/ Object oriented database management**, Knowledge of DevOps, **Working knowledge of Machine Learning and Data Mining algorithms**
Professional skills: Teamwork, Leadership, Communication, Time management, Customer Service

Work Experience

Software engineer (Part time) | Commercialization @ iTaP | January 2019 – present

My responsibilities involve developing and testing projects on iTaP's Passport, an online learning portfolio system that provides a framework for students to complete reviews and quizzes and receive an outcome-based scorecard. I have been cultivating my professional responsibilities in software engineering, AGILE methodology and delivering new features based on user feedback.

Teaching Assistant | Purdue Computer Science; Prof. George B. Adams | Dec 2016 – May 2019

Teaching Assistant for CS250-Computer Architecture involved designing, conducting and grading labs where students learn about circuits, ARM architecture and Assembly programming using RPi 3.

Software Engineering Research Intern | Raspberry Pi Foundation; Purdue University | May 2017 – August 2017, May 2018 – July 2018

I implemented and optimized a 64-bit kernel and headless Operating System for the Cortex A53 chip on the Raspberry Pi 3. Organized a team of 4 to evaluate and analyze porting the 64-bit OS to the Raspberry Pi and then implemented it. I then led the work on optimizing the OS to be functional on a minimal system like the RPi 3.

Purdue Police Student and Dispatch Trainer | Purdue University | September 2015 – December 2018

I was responsible for training Student Patrol and Dispatch personnel of the Purdue Police Department in efficiently using new campus emergency systems, geared towards improving response times, and the Purdue Safewalk Program.

Projects

Process Scheduler **(C):** Implemented a process scheduler to achieve a faster approach to process scheduling.
PageRank **(Python):** Implemented and analyzed PageRank and HITS ranking systems for any set of weblinks.
Database Implementation **(Java):** Constructed a database system on top of a framework of JSON files. Features implemented included integrity validation, access control and query functionality.
Shell **(C++):** Built my own working Shell by writing grammar rules and implementing many features emulating a bash shell.
Ratings Predictor **(Python):** Built a ratings and food dish prediction program based on vector space similarity supported memory-based collaborative system.