APOORV VIDHU SHARMA

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EDUCATION

Purdue University – West Lafayette, IN May '18
Bachelor of Science in Computer Engineering

TECHNICAL SKILLS

Python, C/C++, Java, System Verilog, JavaScript, Git/SVN, MIPS Assembly, Bash Scripting

RELEVANT EXPERIENCE

Agriculture Information Technology – Purdue University – *Student Technician* May '17 – Aug '17

- Managed tier 2 – 3 support for ***4,000 users*** in the College of Agriculture's IT (AgIT) department.

Skills: Communication, Collaboration

Undergraduate Teaching Assistant – Purdue University – *Microprocessor Design and Interfacing* Jan '17 – May '17

- ***Trained*** and ***mentored*** 20 students to understand ***assembly language*** programming techniques, interrupt control systems and handshaking protocols.

Skills: Embedded C, Debugging, Problem Solving, Leadership

Diebold Nixdorf – Mumbai, India – *Software Engineering Intern* May '16 – July '16

- ***Customized user interface,*** by adding radio buttons, checkboxes and dropdowns to improve functionality for easy navigation of the software.
- ***Collaborated*** with a team of engineers in ***sieving through error logs*** and making necessary changes to provide functioning code.

Skills: Debugging, UI Design, Git – Version Control, Application Development Life Cycle, Collaboration

PROJECTS

Game Development – Purdue University Aug '17 – Dec '17

- Developed Zork, an interactive fiction game in ***C++.***
- Coded space invaders, a classic arcade game in ***Java.***

Skills: Object-oriented methodology, Multi-threading, 2D Graphics Animation, XML Parsing

Tiny Compiler – Purdue University Aug '17 – Dec '17

- Designed, developed and optimized a fully functioning compiler for the language, Micro.

Skills: C++, Flex/Bison, Data Structures, Scripting

Multi-Core Processor – Purdue University Aug '17 – Dec '17

- Optimized a single-cycle processor by implementing a 5-stage pipeline, ***improving efficiency by 352%***.
- Further enhanced performance by ***implementing an L1 cache*** and integrating cores, to create a dual-core processor.

Skills: System Verilog, MIPS Assembly, VLSI

Steganography – Purdue University Apr '17 – May '17

- Encapsulated the payload image inside the carrier by ***reorganizing the LSB of the RGB bytes*** of the carrier image.
- Successfully optimized ***Python*** code to ***reduce the run time by 40%*** and embed 1.5MB in less than 2 seconds.

Skills: Python 3.4, QT GUI, NumPy, SciPy Libraries, SVN – Version Control, Computer Security, Vectorization

Self-Parking Car – Purdue University – *Team Leader* Aug '16 – Dec '16

- ***Delegated tasks and roles*** to team members and established project timeline to streamline the development process to create a productive work flow.
- Created schematic layouts of the circuit to ***make the circuit as compact*** as possible and function efficiently, allowing the car to ***self-park in less than 14 seconds***.

Skills: Embedded C, Circuit Design/Integration, Microcontroller Interfacing, Leadership

Android Development Jul '16 – Aug '16

- Developed a ***language learning tool*** to help users learn a Native American language, Miwok.
- Implemented threading and added menus to a sample weather app to ***improve performance by 15%***.

Skills: Java, XML, Threading, Android Studio, Open Source Experience

Rubik's Cube Solver – Purdue University Apr '16 – May '16

- Surpassed the expectation by ***solving over 2000 random*** combinations of a Rubik's cube ***within half a second***.

Skills: Python 2.7, PyCharm