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

IEEE Code Cafe – Purdue University – *Mentor*   Apr '18
- Successfully *coached* graduate students to further enhance skills in *data structures* and *object-oriented concepts*.
  Skills: Python 3.6, Debugging, Communication

Undergraduate Teaching Assistant – Purdue University – *Software Engineering Tools*   Jan '18 – Apr '18
- *Train* and *mentor* 30 students to use scripting languages to integrate the input/output of diverse software systems.
- Aided students to apply *testing techniques* to assess *software reliability* and correctness.
  Skills: Scripting Languages, Python 3.4, 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

Smart Surface – Purdue University – *Hardware and Systems Engineer*   Jan '18 - Present
- Successfully *designed*, *developed* and *tested* a *PCB* schematic and layout for the Smart Surface project.
- *Interfaced* various sensors with STM32F0 to obtain accurate readings, using I2C and UART.
  Skills: PCB Design, Embedded Systems, Hardware/Software Engineering, Interfacing

Game Development – Purdue University   Aug '17 – Dec '17
- Developed Zork, an interactive fiction game in *C++,* and 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, Automation

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.
  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