

BITS Pilani, KK Birla Goa Campus  
Course: BE(Hons) ComputerScience  
CGPA: 6.7  
Expected Graduation: May, 2017

## PRATIK SINGHAL

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### INTERNSHIPS

**Software Developer, Intern** **Intuit IDC. Bengaluru** **Summer 2016**

Amazon web services Infrastructure setup automation

- Developed command line tool to automate deploying Docker instances on Amazon web services, running tests using Jmeter and generate reports.
- Implemented REST based services on top of above command line interface.
- Developed a Web application utilizing MEAN stack using the above developed REST services.

**Google summer of Code, 2015** **FreeBSD Foundation** **Summer 2015**

- Developed drivers for Direct memory Access (DMA) and AC'97 codec for FreeBSD kernel
- Fixed bugs in current MMC driver implementation and improved transfer speed by 37%.
- Added support for DMA in existing implementation of MMC driver

### TECHNICAL EXPERIENCE

#### Projects

- **Building a checkpoint enabled virtual environment:** -
  - 1) Ported the existing implementation of Libckpt check pointing library from 32 bit to 64 bit. (C++)
  - 2) Implemented a framework for check pointing Java based applications using DMTCP check pointing.
- **Cluster computing on Raspberry Pi:** -
  - 1) Built a framework for using a cluster of Raspberry Pi to parallelize processes performing computation using Python.
  - 2) Observed a gain of 24% in speed of computation using 3 Raspberry Pi's
- **Mapped:** - Built an application for downloading course content automatically from BITS Goa's servers automatically using C#.
- **BITS-OS:** - Built a mini Operating system using C, assembly for i386 architecture.
- **MIT Jos Kernel:** - Implemented paging, and process management in MIT Jos Kernel. (6.828 Operating systems engineering lab)

### ADDITIONAL EXPERIENCE AND AWARDS

- President, ACM Chapter BITS Pilani KK Birla Goa Campus (Dec 2014 – Dec 2015)
- Secretary, Department of Computer Science, BITS Pilani KK Birla Goa Campus (Aug 2014 – Aug 2015)
- **Ranked 38 nationally in Google Code Jam round 1A, 2016** out of 2200 participants (A yearly competitive programming contest organized by Google).
- **Won Hackathon** organized by Computer Science Department, BITS Pilani KK Birla Goa Campus. (2014)
- **Taught Data structures and Algorithms** under Technology Incubator Program, BITS Pilani, Goa Campus. (2014)
- **Taught Operating System concepts** under Technology Incubator Program, BITS Pilani Goa Campus. (2015)
- **Taught Object oriented programming using Java** under Center for technical education, BITS Pilani, Goa Campus. (2014)
- **Secured 4<sup>th</sup> prize in Bits-n-Bytes**, (a competitive programming competition organized by Department of Computer Science, BITS Pilani Goa Campus (2014)

### Languages and Technologies

- Languages (In order of proficiency) C, C++, Python, Java, JavaScript
- Version control systems: Git, subversion.