

ADITHYA ANAND

SOFTWARE DEVELOPMENT ENGINEER, AMAZON

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About Me

I'm currently working at Amazon, designing and optimising systems and processes in the technology that fulfills customer orders on their retail website, worldwide. I'm a graduate from BITS-Pilani K. K. Birla Goa campus, with a major in Electrical and Electronics Engineering.

I like engineering solutions to problems we face, and look forward to learning methods and using tools which facilitate and expedite the process.

Education

- **B.E. (Hons.), Electrical and Electronics Engineering - Birla Institute of Technology and Science, Pilani, India**
August 2015 - May 2019
 - CGPA: 8.63/ 10.00
- **High School - Maharishi Vidya Mandir - Chennai, India**
July 2013 - April 2015
 - CBSE: 95.4%

Technical Skills

- **Programming Languages:** Java, JavaScript, C++, Bash, HTML + CSS, Verilog, BlueSpec SystemVerilog
- **Frameworks & Environments:** Git, Spring, Arduino IDE, Linux, macOS, Windows

Industrial Experience

- **Amazon**
 - **Software Development Engineer** August 2019 - Present, Bangalore, India
 - Designed and implemented an application used in 143 Amazon warehouses around the world, helping warehouse workers expedite audits of pallets (huge shipments). Used Java, JavaScript, HTML + CSS to program its MVC architecture.

I am the sole owner of the above project, and have worked in every aspect of its development. This includes system design, client interaction, code development, testing, documentation, and support post rollout.
 - **Software Development Intern** May 2018 - July 2018, Bangalore, India
 - Engineered and implemented a feature in a path planning algorithm helping warehouse workers aggregate similar items quickly. Feature is currently used in all Amazon warehouses globally.
 - Implemented a feature disallowing warehouse workers from making mistakes using power tools while transferring items between containers. Prior to this feature, these mistakes were costly since they couldn't be undone. Implemented in Java (Server-Side) and JavaScript/ HTML (Client-Side).

- **Invento Robotics**

- Software Development Intern

May 2017 - July 2017, Bangalore, India

- Worked on full stack development of a centralized cloud based architecture for managing the startup's humanoid, **Mitra**.
 - Worked on creating database solutions for logging Mitra's diagnostic data to help in troubleshooting.

Academic Experience

Internships

- **Research Intern - School of Computing, National University of Singapore**

Jan 2019 - June 2019, Singapore

Synthesized novel processors in HDL to obtain hardware perceivable data like area/ energy overhead and processor performance. Enhanced processor design based on parameters obtained, contributing to ongoing research by post doctorates in my team.

Teaching

- **Teaching Assistant: Computer Architecture**

August 2018 - December 2018, BITS Pilani Goa, India

Served as a teaching assistant to Prof. Geeta Patil in Computer Architecture, for the batch of 2016. Designed questions for weekly lab sessions. I also evaluated mid-semester and semester practicals.

- **Teaching Assistant: Computer Programming**

January 2018 - May 2018, BITS Pilani Goa, India

Served as a teaching assistant to Dr. Biju K. Raveendran in Computer Programming, for the batch of 2017. Taught rudimentary programming methodologies, and evaluated weekly practical sessions.

Relevant Courses Taken

- Software Engineering
- Computer Architecture
- Object Oriented Programming
- Software for Embedded Systems
- Real Time Systems
- Microprocessors and Interfacing

Academic Projects

- **Designing a Deterministic Cache**

July 2018 - Present, BITS Pilani Goa, India

Used cache locking and cache partitioning protocols to design a deterministic cache preceded by a deterministic TLB. Custom designed a simulator in Java.

Hard Real Time Systems

Guide: Dr. Biju K. R.

- **Analytics Sensor Test – Kit for Advanced Process Control**

January 2018 - May 2018, BITS Pilani Goa, India

Designing a proof-of-concept IoT scalable interface to gather data from sensors installed at the waste-water treatment site, built on the Flask framework. This work is in collaboration with Ohio University, Cranfield University, and Caltech.

Internet Of Things

Guide: Dr. Nitin Sharma

- **Student Welfare Division App**

December 2017 - April 2018, BITS Pilani Goa, India

An essential portal for students residing/ studying in BITS Pilani K. K. Birla Goa Campus, dealing with day-to-day administrative activities, built on the Django framework.

Web Application

OSD Labs, BITS Pilani Goa, India