Yashvardhan Didwania

didwaniayashvardhan@gmail.com ◇ Github ◇ Webpage

Education

- **B.Tech** — **Jul '16 - Present**
  Indian Institute of Technology, Bombay — **CPI - 8.73**
  Major in Electrical Engineering
- **Intermediate** — **Apr '16**
  Delhi Public School, Megacity — **95.60%**
  Indian School Certificate Examination (ISC)
- **Matriculation** — **Apr '14**
  Delhi Public School, Megacity — **94.80%**
  Indian Certificate of Secondary Education (ICSE)

Academic Achievements

- Pursuing a Minor in **Computer Sciences and Engineering** (CPI - 9.0).
- Secured an **All India Rank 415** in **JEE Advanced '16** among 0.2 million candidates.
- Achieved **99.7 %ile** in **JEE Mains '16** among 1.2 million candidates.
- **Ranked 1st** in **WBJEE '16** among 0.12 million candidates in Engineering.
- **National Top 1%**(among 40,000) in the preliminaries for the **Indian National Chemistry Olympiad**(InChO).
- Amongst **Top 1%** in the State in the preliminaries for the **Indian National Physics Olympiad**(IPhO).
- Secured an **All India Rank of 465** in the **Kishore Vaigyanik Protsahan Yojana**(KVPY) '16.

Experience

- **Mozilla Foundation** — **May '18 - Aug '18**
  Google Summer of Code student under Jonas Finnemann Jensen — *Mumbai, India / San Francisco, CA*
  - Selected for the prestigious Google Summer of Code program to work on their Pulse-inspector backend for Taskcluster(under the Release and Productivity team).
  - Created backend api enpoints that allow browser applications to listen to arbitrary Pulse messages.
  - Used Server-Sent Events in the nodejs backend, with sufficient error handling capabilities.
  - Updated the pulse-inspector browser application to use the new event-stream protocol.
  - Attended the All Hands at San Francisco and Orlando to discuss about Taskcluster and its future .
- **LendIt** — **Jun '17 - Dec '17**
  Seasons of Code '17 — *Web and Coding Club,IIT Bombay*
  - LendIt is an online platform meant to bridge the gap between **book lenders** and **borrowers**.
  - Migrated the web application of LendIt to an Android App for better user experience.
  - Exposed **REST APIs** on **Django Server** to get the **ISBN** from the **Android App** and provide the necessary details of the book obtained from **Google Books API** back to the app.
  - Used **Graph API by Facebook** to fetch details about the user and create a **User Profile** in the database.

Technical Projects

- **Court Piece** — **Dec '18**
  Inter - IIT Tech Meet — *[Code] Hackathon*
  - Built a modular HTML5 framework for multiplayer card games to be played with Android phones.
  - Developed the android app to be used as the soft controller for each player in the game.
  - Different devices are managed and the state is synced using a REST api calls to the central server.
- **Processor Design** — **Jul '18 - Nov '18**
  Prof. Virendra Singh — *[Code] Microprocessors*
  - Designed and simulated a 6-stage pipelined 16-bit RISC processor based on the IITB-RISC ISA.
  - Synthesized the pipelined processor on FPGA and demonstrated using SignalTap Analyzer.
  - Designed, simulated and synthesized a Multi-Cycle RISC processor based on the same ISA.

- **Mood Indigo** **May '17 - Aug '17**
  Website *Mood Indigo,IIT Bombay*
  - Built the frontend of the website with **animations** including a rotating **Ferris Wheel** using **Jquery**.
  - Implemented the backend for CR Portal using **Django** and **REST API framework**.
  - Created a **custom System Panel** comprising of email functionality to ensure **maximum productivity**.
  - All the code was reviewed and perfected before being pushed to production.
- **Microprocessor Controlled LED Cube** **May '17 - Jun '17**
  Web and Coding Club *Institute Technical Summer Project*
  - Developed an 8x8x8 LED Cube using **Shift Registers**, **MOSFETs** and **Arduino**.
  - Wrote a **Python script** which provides **serial input** to Arduino to control the ICs.
  - Used a **high refresh rate** of LEDs to display letters and various patterns on the Cube.
- **Stopwatch using TTL ICs** **Feb '17 - Mar '17**
  Prof. M B Patil *Electronics(Course Project)*
  - Devised a logical circuit that provided **start** , **stop** and **pause** features upto unit second precision.
  - Displayed the final result on **Seven Segment Displays** minimizing the circuit.
  - Used a combination of **timer** and **counters** to create the circuit.

Positions of Responsibility

- **Manager** - Web and Coding Club, IIT Bombay **Apr '17 - Mar '19**
  - Lead a team of 20 sophomores, part of one of the biggest college technical clubs in India, to cultivate and sustain a hobbyistic programming culture and conduct activities in the institute.
  - Ensured completion of several open-source projects in the Seasons of Code held in Summer.
  - Guided **100+ first year students** in making their first app using **MIT Scratch** and conducted the **Git** and **Android** workshops to introduce students to the basics of programming.
  - Developed an Internship Portal in **Django** to connect startups, professors and companies with students seeking internships. We currently have over 1000 students and 40 internships on our platform.
  - One of the **Founding Members** of the **GSoC Inncubation Cell** to guide students in getting started with **Open Source** and encourage more participation in GSoC.
- **Web and Tech Coordinator** - Mood Indigo, IIT Bombay **May '17 - Present**
  - Asia's Largest College Cultural Festival | **1,39,000 footfall**. | **230+ events**
  - Developing websites, apps, portals for **Mood Indigo, 2017** that receive over **6.5 million** hits yearly.
  - Managing a team of over **50 organizers** to conduct and execute events in Mood Indigo 2017 .
  - Responsible for the technical materials brought for Mood Indigo like spider camera and quadcopters.
- **Web Secretary** - Electrical Engineering Students' Association **Apr '17 - Present**
  - Created and managed **online elections** for various posts in the department using Gymkhana portal.
  - Updated the **EESA website** with latest data and events of the department.

Technical Skills

- **Experienced :** Python, Django, Javascript (with AngularJS, nodejs), HTML, CSS, VHDL
- **Familiar :** C/C++, Java(with Android), OpenCV, Bash, PHP, Arduino, Go
- **Tools :** git, ngSpice, vagrant, Quartus, LaTeX, TensorFlow, gem5

Key Courses

- **Electrical Engineering** - Microprocessors, Adavanced Processor Design, Data Analysis and Interpretation, Network Theory, Signals and Systems, Analog Circuits, Probability and Random processes
- **Computer Sciences** - Computer Programming & Utilization, Computer Networks, Data Structures & Algorithms, Automata Theory, Introduction to Machine Learning, Network Security & Cryptography
- **Mathematics** - Complex Analysis, Calculus, Linear Algebra, Differential Equations
- **Others** - Quantum Physics and Application, Electricity and Magnetism, Economics, Psychology

Extra Curriculars

- Secured **2nd position** in the Jio hackathon organized as part of the **7th Inter-IIT Tech Meet '18**
- Secured **1st** position in **Stratazenith**, a game theory based event conducted by **IGTS** in **Techfest'17**
- Completed a two semester course offered by **National Sports Organisation** in **Squash.**
- Participated in **Institute Squash Freshmen Open** and **Aavahan,IIT Bombay.**
- Completed the **Yahoo! HACK U '17** campus hackathon successfully.
- Member of **Best freshmen team** in **Logic GC '16** conducted by **Maths and Physics Club**
- Successfully completed a **Level A1 Chinese Course** in Jun '11.