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# Nikhil Bhav

## B.Sc. Computer Science

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An Undergraduate Computer Science major with interests in Web development, Blockchains and Micro-architecture, along with Psychology and Political Science, looking for internship and job opportunities.

### SKILLS

<b>Languages &amp; Frameworks</b>	Python, C, C++, R, Solidity, HTML, CSS, Javascript, React
<b>Tools &amp; Applications</b>	Docker, Hyperledger Fabric, Octave GNU, $\text{\LaTeX}$ , RemixIDE, ArduinoIDE
<b>OS and MicroArch</b>	MIPS assembly, xv6 (MIT), SniperSIM Simulator, VANS, NVMAIN
<b>Communication</b>	English, Marathi, Hindi, German
<b>Miscellaneous</b>	Video Editing (Premiere Pro/DaVinci Resolve), Photography, Videography

### TECHNICAL EXPERIENCE

#### Randomness Beacon - Ethereum

April 2022 — May 2022

Dr Mahavir Jhawar, Ashoka University

Sonipat, HA

- Implemented a random number generator using the inherent entropy of Ethereum blocks
- Allows a user to generate a 256-bit random number approximately every 15 seconds
- Wrote the generator in a Solidity smart contract and deployed it on the Kovan testnet
- Developed a front-end using React.js to host the project (can be found [here](#))

#### 'EZY' Compiler

November 2021 — December 2021

Dr Shrawan Kumar, Ashoka University

Sonipat, HA

- Attempted to create a mini-compiler for a mock programming language called 'EZY'
- Used the PLY (Python Lex-Yacc) tool for parsing through high-level code
- Created a custom symbol table and wrote semantic checks for the same
- Project can be found [here](#).

#### PerfectPitch

November 2021 — December 2021

Dr Subhashis Banerjee, Ashoka University

Sonipat, HA

- Created a genre classification app to classify songs into 10 distinct genres
- Utilized SVM, K-means clustering and Bagging classification algorithms
- Trained the model on the GTZAN dataset ([link](#))
- Final project for CS-1390: Introduction to Machine Learning, can be found [here](#).

#### Research Intern - COSys Research Group

June 2021 — December 2021

Dr Manu Awasthi

Remote

- Worked on implementing the paper *Prefetching in Hybrid Main Memory Systems*:  
[https://www.usenix.org/system/files/hotstorage20\\_paper\\_v.pdf](https://www.usenix.org/system/files/hotstorage20_paper_v.pdf)
- Contributed towards creation of a memory simulation pipeline using SniperSIM, NVMain and VANS simulators
- Research funded by Huawei Technologies Co. Ltd.

#### Teaching Assistant - ENG-2350/CS-2109: Introduction to Digital Humanities

September 2021 — December 2021

Dr Johannes Burgers, Ashoka University

Sonipat, HA

- Received an aggregate student feedback of 4.72/5
- Responsibilities included conducting regular office hours, managing course logistics and assisting with grading
- Designed a feedback mechanism for better group collaboration and accountability

### EDUCATION

#### Bachelor of Science (Honours) in Computer Science, Ashoka University

2019 — 2023

GPA: 3.58/4 (8.95/10)

Relevant Courses: Linear Algebra, Algorithm Design & Analysis, Introduction to Machine Learning, Operating Systems, Programming Language Design and Implementation, Introduction to Digital Humanities, Computer Networks, Blockchain and Cryptocurrencies

Dean's List: Monsoon 2019, Spring 2020

#### HSC (Commerce), BMCC, Pune

2017 — 2019

Cummulative Percentage: 92%