# Anubhav D. Patel

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## **EDUCATION**

# INDIAN INSTITUTE OF INFORMATION TECHNOLOGY KALYANI

BTECH IN COMPUTER SCIENCE Expected 2021 | Kolkata, India Cum. GPA: 9.6

#### KENDRIYA VIDYALAYA IIT MUMBAI

Mumbai, India

# LINKS

Github://anubhavp28 LinkedIn://anubhavp28 Codechef://anubhavp28 Medium://anubhavp28

# **COURSEWORK**

#### **UNDERGRADUATE**

Design And Analysis of Algorithms
Computer Organization and Architecture
Formal Language and Automata Theory
Data Structures
Programming with C
Discrete Maths
Probability and Statistics

# SKILLS

#### **PROGRAMMING**

Python • C • C++ • JavaScript • Octave CSS • PHP • MySQL • MongoDB • PostgreSQL • Redis • HTML • Assembly • 上EX • Bash Scripting • Linux • Flask • Django

#### Familiar:

Android • NodeJS • Electron

# HACKATHONS

#### **HACK-A-BIT 2018**

• 6th Prize Winner (out of 50 teams)

# HUMBLEFOOL CHARITY HACKATHON 2017

• Successful Participation

### **WORK EXPERIENCE**

#### THE BOMWAY | FULL-STACK DEVELOPER - INTERN

Dec 2018 – Present | Flask, MongoDB, Bootstrap, Python, JavaScript, HTML, CSS

- Implemented a e-commerce shopping cart with support for multiple payment gateways, the option to offer discounts, ability to calculate international shipping cost, and elegant UI.
- Implementing an backend service to provide a single interface to UploadCare CDN and Amazon S3.
- Performed Search Engine Optimization for their website.
- Discovered and fixed two distinct vulnerabilities concerning user authentication and order placement, in their codebase.

## **PROJECTS**

#### WIDESCALE | FULL-TEXT SEARCH SERVICE | LINK

Golang, Mux

- Created a full-text search service in golang. It provides ability to search for words or group of words, inside large quantity of text spread across multiple documents.
- Internally, it utilizes an Inverted Index (similar to ElasticSearch and Lucene), allowing it to perform well even with large number of documents.

#### SHORTIFY | A URL SHORTENING MICROSERVICE | LINK

Python, Redis, Postgresql, SQLAlchemy, Flask, Docker

- Created a URL shortening microservice built on top of Redis and Flask.
   Additionally, utilized Postgresql as a persistent store to mitigate data loss due to failures.
- Utilized docker to containerize the service and allow for easy deployment.

# NEWS AGGREGATOR THAT HELPS MITIGATE THE EFFECTS OF MEDIA BIAS ON USERS | Link | For HACK-A-BIT 2018 HACKATHON

Python, Flask, Requests, Requests-HTML, TextBlob, FakeBox, JSON, Sqlite3, HTML, CSS

- Created a News Aggregator Progressive Web App, that utilized Machine Learning and Sentiment Analysis to classify news article as 'impartial' or 'partial'.
- Any search made through the app, returns news articles in a way that tries to cover all the perspectives on news available.
- Finished as the 6th highest ranked team at HACK-A-BIT 2018 (out of 50 teams selected from all over India).

#### PLACEMENT PORTAL | LINK

PHP, PHPMailer, MySQL, HTML5, CSS3, JavaScript

- Designed the database schema and implemented backend using PHP and MySQL, for registering companies.
- Implemented automatic emailing facility using SMTP.
- Designed and implemented a responsive frontend for the website.

#### **UDAAN** | Website For Literary Club | Link

HTML5, CSS3, SVG Animation, Slick, AOS.css

- Created a elegant looking website for IIIT Kalyani's literary Club.
- Implemented Animation on inline-SVG with CSS.

#### TVFPLAY-DL | LINK

Python, Requests

• TVFPlay-dl is a command line tool to download videos from TVFPlay (https://tvfplay.com).

#### PAPERVAULT | LINK

HTML, CSS, JavaScript

• Papervault is a archive of previous year question papers of IIIT Kalyani and accompanying website to simplify searching of the archive.

Other projects include: Pacman clone, Website For Open-Source Club.

#### RESEARCH

#### CHARACTER RECOGNITION USING BINARY IMAGE **DECOMPOSITION** | Under Prof. Sanjoy Pratihar, IIIT Kalyani

Aug 2018 - Present

- Studied different algorithms for rectangular binary image decomposition ( Run-length encoding, Generalized Delta Method, Quad-tree decomposition, Graph-based decomposition)
- Currently, working on finding the feasibility of creating an OCR system that can recognize character using this decomposition.

# OPEN SOURCE CONTRIBUTIONS

# **SCIPY** | LIBRARY FOR SCIENTIFIC COMPUTATION

Python

- Applied for SciPy in GSoC with proposal LINK.
- Improved documentation for integrate module.

#### ORIGAMI.JS | LIBRARY TO DRAW ON HTML5 CANVAS

HTML5 Canvas, JavaScript

• Implemented a bar charting method lacking in OrigamiJS.

Other organizations I have contributed to includes: FOSSASIA, Processing Foundation.

# **ACHIEVEMENTS**

- Member of 6th highest ranked team at on-site event of HACK-A-BIT 2018 Hackathon.
- 4 star rated user on Codechef.

# CERTIFICATES

2018	NPTEL	Design And Analysis of Algorithms
2018	NPTEL	Programming, Data Structure And Algorithms in Python [Top 1%]
2018	NPTEL	Programming, Data Structure And Algorithms in C [Top 5%]

# POSITION OF RESPONSIBILITY

2018	Technical Adviser	Technical Committee of IIIT Kalyani
2018	Founding Member	Open-Source Club of IIIT Kalyani