# Parth SHAH

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# **EDUCATION**

## PES University, Bangalore | Bachelors in Technology, Computer Science & Engineering | 2021 | CGPA: 8.98

Involvements Coding Division Head, The Alcoding Club | Subject Matter Expert, PESU I/O | Research Project

Associate, EEE Department

**Current Courses** Compiler Design, Cloud Computing, Natural Language Processing

Introduction to Data Science, Data Structures, Design and Analysis of Algorithms, Web Techno-**Completed Courses** 

> logies, Database Management Systems, Probability Modelling, Secured Programming with C, Microprocessor and Computer Architecture, Linear Algebra, Introduction to Blockchain Technology, Operating Systems, Computer Networks, Machine Learning, Artificial Intelligence, Ad-

vanced Algorithms

Solidity, C/C++, Python, HTML/CSS, JavaScript, SQL Languages

Tools & Technologies MPI, Ethereum, React, Node, Express, Firebase, MongoDB, Django, Git, ŁTFX

## EXPERIENCE

## Current Jun 2019

## Project Intern, Solid State & Structural Chemistry Unit, IISc, Bangalore

- > High performance computing (scientific) and parallel computing
- > General methods for computing correlation functions
- > Message Passing Interface and various other optimization techniques

## Dec 2019 Jun 2018

## Coding Division Head, THE ALCODING CLUB, CS&E Department, PES University

- > Web portal for the activities of the CS&E department
- > Assignment submission, evaluation, contest ranking, online judging, codelabs
- > Full stack development and project co-ordination

## Jul 2018 Jun 2018

#### Software Developer Intern, HEADRUN TECHNOLOGIES PVT. LTD., Bangalore

- > Django framework for responsive websites
- > Finance startup in Ireland, PayLabs | Social media analysis in India, Buzzinga
- > Several third party integrations for existing projects to better enable sales teams

## **FORMATION**

Central Board for Secondary Education | National Public School, Koramangala | Vice Captain | 96%

Indian Certificate for Secondary Education | Sishu Griha Montessori & High School | Head Boy | 94%

## RESEARCH AND PROJECTS

ANALYSIS OF FIBONACCI HEAPS DEC 2019

Bench-marked a Fibonacci Heap against a simple Binary Heap. Simulation of process scheduling and implementation of Dijkstra's algorithm using both. Resources are available at this **link**.

#### PARALLEL IMPLEMENTATION AND BENCH-MARKING OF PRIM'S ALGORITHM

MAY 2019

Prim's algorithm finds the minimum spanning tree for a weighted, undirected graph. The aim of this project was to benchmark a parallel implementation of Prim's algorithm against a sequential implementation. Resources are available at this **link**.

#### **ETHEREUM SMART CONTRACTS IN SOLIDITY**

JAN 2019 - JUN 2019

Variable Labs, Bangalore

Smart contracts designed, tested and deployed for an ERC-20 token, an escrow in Solidity. Development of a universal exchange.

#### **VERILOG STACK IMPLEMENTATION**

Nov 2018

Implementation of a stack data structure using verilog, a Hardware Description Language (HDL). Resources are available at this **link**.

ADVERTISEMENT FREE RADIO NOV 2017

HashCode, Microsoft Innovation Lab

An application that overlays advertisements in a live stream of radio with the users' favourite tracks for uninterrupted listening. Third place in a 24 hour hackathon.

#### **EVALUATION OF SPEECH ENGINES FOR USE IN AIR TRAFFIC CONTROL**

OCT 2017 - Nov 2018

EEE Department, PES University

Evaluation of Automatic Speech Recognition (ASR) technologies for adoption in Air Traffic Control simulators. Research conducted on pilot communication. Worked on state and error handling, testing. Paper at this **link**.

# EXTRACURRICULAR ACTIVITIES, VOLUNTEERING

## **EXTRACURRICULAR ACTIVITIES**

Head of Finance - Model United Nations Society (2019) | Core Member - Epsilon Science Fest - PES University (2018) | Delegate - Model United Nations (2013-2018) | Robotics - First Lego League & Indian Robotics Olympiad (2013-2015)

### VOLUNTEERING

Content Creator - Parikrama Foundation (2019) | Primary School English Teacher (Assistant) - BGMS Shishukunj Vidyalaya (2018)