

Parth SHAH

+91 9538 794 906
@ parthvshah@gmail.com
in linkedin.com/in/parthvshah
github.com/parthvshah

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
Completed Courses	Introduction to Data Science, Data Structures, Design and Analysis of Algorithms, Web Technologies, 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, Advanced Algorithms, Compiler Design, Cloud Computing, Natural Language Processing
Languages	Solidity, C/C++, Python, HTML/CSS, JavaScript, SQL, GNUPLOT
Tools & Technologies	Keras, Docker, AWS, MPI, Ethereum, React, Node, Firebase, MongoDB, Django, Git, TeX

EXPERIENCE

July 2020 May 2020	Student Trainee, SYSTEM INTELLIGENCE, ON DEVICE AI, Samsung R&D Institute, Bangalore <ul style="list-style-type: none">> R&D of machine learning solutions using image processing and deep learning> Worked on solutions for improving (soft) user experience
May 2020 Jun 2019	Project Intern, SOLID STATE & STRUCTURAL CHEMISTRY UNIT, IISc, Bangalore <ul style="list-style-type: none">> 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 <ul style="list-style-type: none">> 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 <ul style="list-style-type: none">> 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

2017	Central Board for Secondary Education National Public School, Koramangala Vice Captain 96%
2015	Indian Certificate for Secondary Education Sishu Griha Montessori & High School Head Boy 94%

RESEARCH AND PROJECTS

NATURALIZATION OF SPEECH USING FILLER WORDS

JAN 2020 - PRESENT

CSE Department, PES University

In this research project, we develop a set of methods to naturalize speech by transformation of text. The naturalization of speech is achieved by the addition of filler words or pauses.(WIP)

PREDICTION OF THE PEAK, EFFECT OF INTERVENTION AND TOTAL INFECTED BY THE CORONAVIRUS DISEASE IN INDIA

MAR 2020 -

APR 2020

We study the effect of the coronavirus disease 2019 (COVID-19) in India using the SEIR compartmental model. The peak, effect of intervention and total infected were predicted using methods of mathematical modelling in python. The MedRxiv pre-print is available at this [link](#).

DATABASE AS A SERVICE

MAY 2020

Built a database as a service using Docker, RabbitMQ, ZooKeeper. High availability and scalability were ensured. The database served was of NoSQL type, MongoDB. The service was deployed on AWS using EC2 instances. Resources are available at this [link](#).

LISP MINI COMPILER IN C++

JAN 2020 - APR 2020

Built a mini compiler for Lisp (limited constructs such as if, for, while) in C++. High level Lisp code is converted to MIPS assembly level code by passing through 3 stages including an optimization stage. Resources are available at this [link](#).

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. Conference 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)