

# Parth Shelgaonkar

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## Education

### **Purdue University, West Lafayette - IN** | Bachelors of Science

Fall 2016 - Fall 2019

- Bachelors of Science in Computer Science (Class of 2020)
- Relevant Coursework- Data Mining and Machine Learning, Intro. to Database Systems, Operating Systems, Systems Programming, Software Engineering, Competitive Programming, DS & Algorithms, Computer Architecture, C Programming, Fundamentals of CS, Intro. to OOP, Linear Algebra, Multivariate Calculus, Intro. to Statistics.

## Experience

### **Purdue University, West Lafayette - IN** | Undergraduate Research Assistant

July 2018 – Present

- Working on research in **Blockchain-based distributed systems**.
- Deploying blockchain ledger on **IBM Hyperledger** Fabric.
- Verifying transactions of **active bundles** for **user data privacy**.

### **Findability Sciences, Aurangabad - India** | Data Science Intern

May 2018

- Worked on **NLP project** for **sentiment analysis** on Indian languages - Hindi and Marathi.
- Implemented API for **SVM model-based classifier** in JavaScript.

### **Purdue University, West Lafayette - IN** | Undergraduate Teaching Assistant

Aug. 2017 – Present

- Teaching Assistant for CS 354 (Operating Systems), CS 252 (Systems Programming), CS 251 (Data Structures and Algorithms), CS 240 (C Programming) & CS 193 (Freshman Tools & Resources).

## Activities

### **Purdue Linux Users Group** | Treasurer

May 2018 – Present

- Organize Vim workshops, Git tech talks, install fests, LAN parties & suicide Linux contests.

## Projects

### **xpac** Jan. 2018 – Apr. 2018

- Developed a **cross-platform package manager** for the \*nixes.
- Developed the client-end command line utility and repo server backend in C/C++.
- Designed and implemented the **client-server protocol** for package transmission and metadata schema for **package management** and **dependency trees**.

### **pshell** Aug. 2018

- A simple **\*nix shell**, with support for pipes, logical operators, I/O redirection, environment variables, wildcarding, history & tab completion, written in Rust.

### **naïve-bayes** June 2018

- **Bayesian classifier API** and **spam filtering** application written in C++.
- Designed and implemented project skeleton and supporting modules as a TA for DS & Algorithms course.
- Wrote an editorial solution for the students, explaining a step by step implementation of the project.

### **packR** May 2018

- Data **compression and file zipping utility** written in Rust.
- Comparable performance to tar and gzip.

### **DRACO** Dec. 2017 – Jan. 2018

- DRAwing COmpression library to **compress images**, written in C.
- SCRIBBLE drawings are compressed by carving outlines to map shapes using scan line algorithm.

### **Scribble** 2015

- Designed **MS Paint** like scribble pad using the Borland Graphics Interface Library in C (DOS).
- Implemented optimized image file saving to reduce memory footprint.
- Ported legacy code to X11 for UNIX like systems.

## Programming Skills/Technologies

Proficient: C/C++, Rust, Java, JavaScript (Node/Express)

Familiar: Python, Shell scripting, ARM/x86 assembly, SQL, HTML, CSS