# Alakhdeep Singh

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#### EXPERIENCE

## Undergraduate Research Assistant

June 2020 – Present

Texas A&M University

College Station, TX

- Developed a REST API using FastAPI and PostgreSQL to store data from learning management systems
- Developed a full-stack web application using Flask, React, PostgreSQL and Docker to analyze GitHub data
- Explored ways to visualize GitHub collaboration in a classroom setting

## Information Technology Support Specialist

Sep. 2018 – Present

Georgetown, TX

- Southwestern University
  - Communicate with managers to set up campus computers used on campus
  - Assess and troubleshoot computer problems brought by students, faculty and staff
  - Maintain upkeep of computers, classroom equipment, and 200 printers across campus

## Artificial Intelligence Research Assistant

 $May\ 2019 - July\ 2019$ 

Georgetown, TX

- Southwestern University
  - Explored methods to generate video game dungeons based off of The Legend of Zelda
  - Developed a game in Java to test the generated dungeons
  - Contributed 50K+ lines of code to an established codebase via Git
  - Conducted a human subject study to determine which video game dungeon generation technique is enjoyable
  - Wrote an 8-page paper and gave multiple presentations on-campus
  - Presented virtually to the World Conference on Computational Intelligence

#### Projects

## Languages | Python, Flask, React, PostgreSQL, Docker

June 2020 - Present

- Developed a full-stack web application using with Flask serving a REST API with React as the frontend
- Implemented GitHub OAuth to get data from user's repositories
- Visualized GitHub data to show collaboration
- Used Celery and Redis for asynchronous tasks

## Simple Paintball | Spigot API, Java, Maven, TravisCI, Git

May 2018 - May 2020

- Developed a Minecraft server plugin to entertain kids during free time for a previous job
- Published plugin to websites gaining 2K+ downloads and an average 4.5/5-star review
- Implemented continuous delivery using TravisCI to build the plugin upon new a release
- Collaborated with Minecraft server administrators to suggest features and get feedback about the plugin

#### TECHNICAL SKILLS

Languages: Javascript, Typescript, HTML, CSS, SCSS

Technologies: Next.js, React.js, Redux, Redux-Toolkit, Tailwind CSS, Material UI, NPM, Webpack, Babel, MongoDB Developer Tools: Git, GitHub, Unit Testing (Jest), VS Code, Visual Studio, Vercel, Netlify, Firebase, Postman, Jira Concepts: Data Structures & Algorithms, Responsive design, Clean Code, Agile, Software Engineering

# EDUCATION

## Guru Nanak Dev Engineering College, Ludhiana

Punjab, India July 2019 – June 2023

Bachelor of Technology - BTech in Information Technology