

# SUMANT GAOPANDE

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## EDUCATION

Master of Science in Computer Science	Indiana University - Bloomington	CGPA: 3.8/4	May 2021
Bachelor of Computer Engineering	University of Pune, India	First Class (distinction)	June 2017

## SKILLS

**Programming Languages:** Python, Java, Node.js, C++, JavaScript, HTML, CSS

**Cloud:** REST, Kubernetes, Distributed Systems, AWS (S3, EC2), Jenkins, Kafka, RabbitMQ, Docker, CI/ CD

**Other:** MongoDB, Git, Maven, Redis, Object-oriented software design, MySQL, NoSQL, Data Structures & Algorithms

## WORK EXPERIENCE

**Graduate Teaching Assistant | Indiana University - Bloomington** August 2020 - Present

- Grading & formulating Python coding assignments for CSCI - B 551 Elements of Artificial Intelligence.

**Software Engineer | Accenture Solutions Pvt. Ltd** September 2017 - July 2019

- Developed a RESTful web service in Node.js to handle IP flips in set-top boxes reducing configuration time by 95%.
- Developed a Full-Stack web application using Angular and Node.js for querying test data from Couchbase streamlining the content retrieval process.
- Developed an Optical character recognition (OCR) service to identify set-top box errors using Python (OpenCV), reducing debug time to less than a minute.
- Built a Chatbot search engine in Angular, Python & Node.js that saved time spent by teams on repetitive knowledge transfer.

**Engineering Intern | Atreya Innovations Pvt. Ltd** July 2016 - April 2017

- Developed a data pipeline to collect, process, and analyze signal data in MATLAB.
- Implemented Neural Net and SVM classification models to study the impact of yoga as a stimulus on wrist pulse signals.

**Software Engineering Intern | Cytel Pvt. Ltd** June 2016

- Developed a windows application in C++ to automate the testing of computational engines.
- Significantly reduced the testing time of computational engines and streamlined the process.

## PROJECTS

**Leader Election in Kubernetes Python client - Open Source contribution** June 2020

- Developed a module for multi-threaded Leader Election in a Distributed Architecture using ConfigMap locks.
- Pull Request: <https://github.com/kubernetes-client/python-base/pull/206>

**RainCheck (Java - Spring Boot, Node.js, React, Python, Docker, Redis)** January 2020 - May 2020

A weather forecasting Distributed System

- Designed & built scalable containerized microservices to compute precipitation graphs from Nexrad radar data.
- Implemented Continuous Integration & Deployment for the microservices in a Kubernetes cluster deployed on OpenStack cloud using Jenkins.

**FindTheHorizon (Python)** December 2019

- Developed a Computer Vision utility that finds and paints the horizon in an image using Baye's nets and the Viterbi algorithm.

**A/B Testing web application (JavaScript, Cloudflare worker API)** April 2020

- Developed an A/B testing web application where requests are evenly distributed between 2 versions of a webpage.
- A user will randomly get either of the 2 versions and keep getting the same webpage unless cookies are deleted.

**Business optimization with Yelp reviews (Python)** August 2019 - Dec 2019

- Identified negative topics from customer feedback for restaurants using Topic Modelling.
- Recommended popular items/dishes in a restaurant that customers like using Named Entity Recognition.

## ACHIEVEMENTS

- Open Source contribution** to the official Kubernetes Python client. June 2020
- Client appreciation award for building a REST service to handle IP flips in set-top boxes. December 2018
- Runner up for 'The Most Radical Idea of The Year' at Accenture (British Telecom - Da Vinci). May 2019