

# SIDHARTH PUROHIT

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## EDUCATION

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- New York University** Tandon School of Engineering | *Master of Science in Computer Science* **Brooklyn, NY, USA** | May 2023  
Coursework: Cloud Computing, Design and analysis of Algorithms, Machine Learning
- Kalinga Institute of Industrial Technology** | *B.Tech. in Computer Science & Engineering* **Bhubaneswar, India** | May 2021  
Coursework: Data Structures and Algorithms, Object Oriented programming, Operating Systems, Database and Information Systems, Software Engineering, System Designing, Discrete Mathematics, Web Technologies.

## SKILLS

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- Programming Languages:** C, C++, Java, JavaScript, SQL, Python.
- Frameworks and Technologies:** Amazon Web Services, Web Development, Android Development, Bootstrap, Node, Express, React, Django, Flask, GitHub, RESTful APIs, CI/CD, Linux, MongoDB, JSP, Client Server Architecture and Models.

## EXPERIENCE

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- GENIE CETL** | *Software Engineering Research Intern* **Leicester, UK** | Jul 2020 - Dec 2020
- Member of the Technical Staff on COVID-19 computational analysis project under the supervision of DNA fingerprinting lab, University of Leicester, UK.
  - Responsible for end to end design of the “Cosine Comparison” feature, from design documentation to unit and integration testing.
  - Implemented NLP aided web application using AWS Codepipeline, CloudFormation, flask, Java, and JSON scripts which resulted in reducing the manual workload by 40%.
  - Used Selenium to access data from NCBI (National Center for Biotechnology Information) web database. The simulation resulted in an efficiency improvement by 65% on the entire project.
  - Built the UI components using Flask, Bootstrap, and developed RESTful APIs for database management using Python.
  - Deployed application over AWS S3 bucket & integrated with front-end using javascript backed AWS SDK and API Gateway.
- Mitacs Globalink** | *Graduate Research Intern* **Edmonton, Alberta, Canada** | May 2020 - Jul 2020
- Selected among the top **150 undergraduate students** around the globe for the Graduate Research Internship (GRI) program.
  - Led a team of 5 in academic Human Computer Interaction backed research at MacEwan University & University of Alberta, Canada.
  - The significance of the project is to aid instructors in the assessment of students' assignments and exams which can be used in a manner similar to a scantron(OMR) which uses only visual input.
  - Created a prototype for analyzing complex Calculus problems in Mathematics using OpenCV, flask, Convolution Neural Networks.
  - The simulation resulted in an overall accuracy of over 85% using various supervised Machine learning algorithms.

## ACADEMIC AND INDUSTRIAL PROJECTS

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- DNA Sequence analysis Engine** | Python, SQL, AWS Lambda, Sagemaker, DynamoDB, S3, API Gateway **Nov 2021**
- Created a distributed load balanced web application for DNA sequence analysis of COVID-19 pandemic.
  - Built and tested a NLP aided algorithm to display relative similarity between any two DNA sequences on real time data.
  - Enabled WhatsApp APIs to implement appointment booking dashboard for COVID-19 detection. Link: [Forward HealthTechSystem](#)
- Voice Based Photo album search** | Python, AWS-Transcribe, API-Gateway, S3, Rekognition, Codepipeline **Oct 2021 - Nov 2021**
- Built a server-less, micro service-driven web application that can be used to search photos using natural language through both text and voice. Created Elasticsearch domain for quick search access and to index the photos at the time of upload.
  - Optimized the entire workflow using AWS Codepipeline for continuous integration and deployment.
  - Link: [Voice Based Photo Album Search](#)
- Dining Concierge Chatbot** | Python, AWS - Lex, Lambda, SES, SQS, DynamoDB, Elasticsearch, S3 **Sep 2021 - Oct 2021**
- Built a server-less, micro service-driven chat enabled web application using AWS cloud services.
  - Created a AWS-Lex chat-bot that provides restaurant suggestions to its users based on the preferences provided through real-time conversations. Project endpoints are managed by AWS API Gateway. Link: [Dining Bot Cloud](#)
- Alleviate: Coping mental health via Web Application** | Flask, SQL, Node.js, NLP, AngularJS, Heroku **Oct 2019 - Apr 2020**
- Built a web dashboard using AngularJS to help users deal with Mental health. Used real time emotions data. Link: [Alleviate](#)