

# YASH MAKWANA

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## Education

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### State University of New York at Binghamton

*Master of Science in Computer Science, 3.56/4.00 GPA*

Binghamton, New York

*August 2022 - May 2024*

### K. J. Somaiya Institute of Engineering and Information Technology

*Bachelor of Engineering in Computer Engineering, 7.54/10.00 GPA*

Mumbai, Maharashtra, India

*August 2016 - October 2020*

## Experience

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### Accenture Solutions Pvt. Ltd

*Application Development Associate*

Mumbai, Maharashtra, India

*January 2021 - June 2022*

- **Designed APIs** for a Banking and Financial sector Loan Management System, collaborating closely with the client to determine specific development needs.
- Utilized the **AnyPoint Platform** to create API specifications aligned with client requirements. Implemented these APIs efficiently using **AnyPoint Studio**, an integration development environment.
- Played a significant role in code development, achieving an **85% code coverage**. Conducted thorough code reviews and managed deployments using BitBucket and Jenkins pipelines for a smooth transition to production.
- Optimized existing API responses by **20%** by modifying data preprocessing code in RAML. Developed a comprehensive **test suite** for the development team, simplifying API testing in all development environments using **Postman**.
- Improved existing **design documents** for better comprehensibility. Created comprehensive test cases to ensure API reliability and functionality. Actively supported client needs to maintain system integrity.

## Projects

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### Diabetic Retinopathy Identification

Deep Learning, Transfer Learning, Image Processing

- Developed a Python-based deep learning project on AWS using **Transfer Learning** for automated Diabetic Retinopathy detection from color fundus photos.
- Focused on **feature extraction** and severity assessment in line with medical guidelines, aiming for clinical practicality.
- Collaborated with **Mastek Limited** and received guidance from Dr. Jugal Shah, an Ophthalmologist, to prioritize patient care and streamline the diagnosis process.

### Instruction Pipeline Simulator

C, Computer Architecture

- Created a C-based application capable of **executing assembly code instructions**, both in-order and out-of-order.
- Implemented optimizations within the processor simulator, including **Register Renaming, Branch Prediction, Tag-based Data Forwarding, a Centralized Instruction Issue Queue, and a Reorder Buffer**. These enhancements led to a substantial 25% improvement in processor performance.

### Job Application Tracker

Web Development, Databases, Containerization

- Developed a job application tracker web application using **React.js and Flask**, enabling users to manage and monitor their job search journey efficiently.
- Implemented features such as **job addition, deletion, editing, and status updating, with functionalities for search and filtering** to streamline job management.
- Utilized **Docker for containerization**, ensuring seamless deployment and scalability of the application while maintaining a robust development environment.

## Technical Skills

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**Languages:** Java, Python, C, Javascript, Typescript, SQL

**Web Frameworks:** Flask, Django, Node.js, Express.js, React

**Database:** MySQL, MongoDB, PostgreSQL

**Technologies/Frameworks:** Git, Docker, Agile, JIRA, Confluence, Jenkins, Postman, AWS, AWS S3

## Achievements and Publications

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- Yash Makwana, Bhaven Naik, and Sakshi Nihatkar. "Diabetic Retinopathy Identification" - GRENZE International Journal of Engineering and Technology (GIJET) (2020):101-105
- Winter Internship Program on Machine Learning - At my undergraduate institution as an alumni initiative.