

Ph: +1 (408) 791-9757
Location: Santa Cruz, California
Email: nbhatia3@ucsc.edu

Nayan Bhatia

GitHub: nayanbhatia311
Website: nayanbhatia.com
LinkedIn: nayan-bhatia

EDUCATION

University of California, Santa Cruz

Masters of Science in Computer Science and Engineering (CSE)

K. J. Somaiya Institute of Engineering and IT, University of Mumbai

Bachelor of Engineering in Computer Engineering

Sep 2021 - Jun 2023 (Exp)

GPA: 3.42/4.00

Aug 2017 - Jun 2021

CGPA: 8.26/10.00

TECHNICAL SKILLS

Programming languages	Python, SQL, Java, C, C++, Java, Scala.
Tools and Databases	Cypress, Selenium Kubernetes, Jenkins, Docker, Jest, MySQL, MongoDB, Github Actions, AWS KMS.
Web Technologies	Node.js, React.js, Express.js, GraphQL, PHP, Javascript, HTML, jQuery, D3, Vue.js, Angular.js.
Python libraries	TensorFlow, PyTorch, Keras, NumPy, Pandas, Matplotlib, Flask, OpenCV.

TECHNICAL EXPERIENCE

Web Developer and DevOps

CASFS, UCSC

Oct 2021 - Present

Santa Cruz, California

- Managed an SQL database, implemented an efficient CI/CD pipeline, and created and maintained more than 100 REST HTTP endpoints using **Pytest-Python**, **Jest**, and **Selenium** for automated testing.
- Leveraged **Google OAuth2** to integrate the authentication with **VueJS** and **Flask**, resulting in a seamless user experience for approximately **3,00,000** students across all **10 UC campuses**.
- Implemented scalable infrastructure using **Apache HTTP Server** and **Gunicorn** on **CentOS** to accommodate the high traffic demands of the **UC BASIC NEEDS** website, resulting in a **30%** increase in website capacity.

Teaching Assistant

CSE, UCSC

Jan 2022 - Dec 2022

Santa Cruz, California

- Taught Programming Abstractions: Python (**CSE 30-01**), Beginning Programming in Python (**CSE 20-01**), Principles of Computer Systems Design (**CSE 130-01**), Systems and C programming (**CSE 13S-02**) consistently receiving positive feedback on evaluations.
- Demonstrated expertise in Python programming, SDLC, Agile Methodologies, client-server and virtualized system models, networking, concurrency and synchronization, shell programming, source code control, Jira, and other relevant tools.

Software Developer

Primary Health Centre Piliv, Under Zilla Parishad

Apr 2020 - Jul 2020

Solapur, India

- Improved company productivity by deploying an Admin Analytics Dashboard on an **AWS EC2 Ubuntu** using **MERN Stack** and **GraphQL HTTP** endpoint, reducing the need to manually write multiple REST endpoints, saving significant time and effort and deployed leveraging **Nginx** and **Apache**.
- Resulted in a **50%** increase in data-driven decision-making by **500** employees and reduced latency by **300%** using GraphQL compared to traditional REST endpoints, measured employing **Google Lighthouse**.

TECHNICAL PROJECTS

Adaptive and Dynamic Data Center Load Balancing [[Paper Link](#)]

Sep 2021 - Dec 2021

- Improved network performance by implementing **ECMP** and **Hermes** load balancers simulations by **OMNeT++** and **INET** network frameworks for evaluating their efficiency in data center and WAN traffic scenarios.

Automation Society Security Task [[Abstract and Presentation Link](#)]

Sep 2020 - Feb 2021

- Integrated an automation system for gathering the identity of the visitors with timestamp and temperature checks.
- Demonstrated the **Gait Recognition Model** formulated by **OpenPose** and **KNN** and measured temperature by **MLX 90614**.

Measure Visual Acuity for Non-Medical Workers [[Video Link](#)] [[Paper Link](#)]

Sep 2019 - Feb 2020

- Innovative solution for visual acuity readings with REST API and **MongoDB** database, serving hundreds of users.
- Built eye charts and analyzed patient data streamlined aggregation pipeline, and integrated **Twilio** and **Gmail APIs** for delivery.

Crop Yield and Health [[Video Link](#)]

Aug 2019 - Sep 2020

- Trained the image recognition **Yolo V3 model** on Nvidia **Tesla V100 GPU** and interfaced it with **ReactJS** Web Application and **Java** based Android App. Computed the health of the plant by using **Normalized Difference Vegetation Index (NDVI)** and **OpenCV**.

PERSONAL ACCOMPLISHMENTS

Teaching Instructor, Python and ML ([Internship Program](#)), KJSIEIT and Connect Club Pvt. Ltd.

Jun 2021 - Jul 2021

Chairperson, IoT Cell, KJSIEIT

Jun 2020 - May 2021

Organised events and seminars attended by over 100 students.

Team Leader, Project DeepBlue ([Intercollegiate Competition](#)), Mastek

Sep 2019 - Feb 2020

Won the Mastek's Deep Blue Season 5 among the 348 registered teams

Backend Developer, Smart India Hackathon Software Edition, 2019, Team Random-6

Jan 2019 - Mar 2019

Led team to win among a pool of 52,000 entries by solving the problem statement "Finding the nearest Parking Lot in vicinity"