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Nayan Bhatia

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EDUCATION

University of California, Santa Cruz	**Sep 2021 - Jun 2027 (Exp)**
PhD in Computer Science and Engineering (CSE)	GPA: 3.52/4.00
K. J. Somaiya Institute of Engineering and IT, University of Mumbai	**Aug 2017 - Jun 2021**
Bachelor of Engineering in Computer Engineering	CGPA: 8.26/10.00

TECHNICAL SKILLS

Programming languages	Python, SQL, C, C++, Java, Scala, Solidity.
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

Research   **Jun 2023 - Sept 2023**
Omnifi   *Pleasanton, California*
- Conducted experiments using two ESP32 devices to collect WiFi telemetry data like RSSI, CSI, and FTM, adjusting device positions and settings to optimize data accuracy.
- Investigated the impact of environmental factors and device settings on accuracy for indoor WiFi localisation, particularly at short distances.
- Tested various CPU frequencies and burst rates on ESP32 devices to assess their impact on timing measurement accuracy, aiming to reduce error margins and improve performance.

Web Developer and DevOps   **Oct 2021 - Present**
CASFS, UCSC   *Santa Cruz, California*
- Managed an SQL database, implemented an efficient Continuous Integration/Continuous Deployment (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   **Jan 2022 - Jun 2024**
CSE, UCSC   *Santa Cruz, California*
- Taught Introduction to Scientific Computing (ASTR 119), Internet of Things (CSE 157), 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   **Apr 2020 - Jul 2020**
Primary Health Centre Piliv, Under Zilla Parishad   *Solapur, India*
- Elevated company productivity by deploying an Admin Analytics Dashboard on **AWS EC2** (Ubuntu) utilizing the MongoDB, Express.js, React, Node.js (**MERN**) stack and **GraphQL HTTP** endpoint, reducing the need to manually write multiple REST endpoints, saving significant time and effort.
- 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

NFT-Powered Resume Verification [Project Link]   **Jul 2023 - Aug 2023**
- Pioneered a blockchain-based solution using smart contracts to verify resume authenticity with NFTs, addressing the challenge of fraudulent resume submissions and boosting recruitment integrity.
- Integrated Ethereum, Flask, React.js, and web3 API, leading to a **45%** improvement in ATS resume ranking efficiency.
- **Winner** of Descope Challenge 2 at DeveloperWeek **CloudX 2023 Hackathon** amidst a competitive field of over **300** participants.

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**
- Devised an innovative digital platform to measure visual acuity, integrating a REST API with a MongoDB database. This solution empowered non-medical workers, **serving hundreds**, to obtain accurate readings without traditional equipment.
- Strategically led the team to clinch **victory** amidst **348** competing teams, showcasing leadership, and solution-driven approach.