HARSH SIDDHAPURA

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PROFESSIONAL EXPERIENCE

Software Engineer — **August 2023 - Present**
ARIZONA STATE UNIVERSITY — **Phoenix, USA**

- Delivering Empowering the Pacific software, Fiji's clean energy, supporting the nation's **100%** renewable energy goal by **2030**.
- Spearheading processes for large datasets, facilitating **solar mini-grid full-stack** software for **75+** remote communities on **Fiji Island**.
- Collaborating with **cross-functional** teams in **backend** and **frontend** development to build cutting-edge technology models, driving a **$40 Million** investment in **renewable** energy **infrastructure** applying Python, NodeJS, ReactJS, Java, Docker, AWS, SQL, and REST API.

Senior Software Engineer — **December 2022 - August 2023**
ENTITLED SOLUTIONS — **Mumbai, IN**

- Directed system **optimization**, slashing loan processing time by **40%** through **enhancements** of numerous disbursement **workflows**.
- Engineered **AWS** serverless data **pipelines**, boosting synchronization **efficiency** and leveraging data to increase engagement by **25%**.
- Elevated system performance and introduced a **microservice** architecture, achieving a **20%** increment in overall platform efficiency.
- Deployed **scalable** apps using AWS, NodeJS, Python, ReactJS, MySQL, & MongoDB, enriching UX and decreasing load times by **15%**.

Software Development Engineer — **January 2021 - December 2022**
INDEXNINE TECHNOLOGIES — **Pune, IN**

- Built Quick Heal security, allowing **analysts** to monitor **25+** alerts simultaneously, perform smart hunting, and provide **protection**.
- Digitized Simply Coach platform, minimizing administrative tasks by **20%** and empowering coaches to focus on strategy & results.
- Streamlined development speed by **25%**, cutting feature development time by **17%** through **diverse** optimized **SDLC** methods in both **backend** and **frontend** development, utilizing tech stack including NodeJS, ReactJS, Java, Spring Boot, PostgreSQL, and AWS.

Research and Development Scholar — **January 2020 - December 2020**
SAMSUNG & THE UNIVERSITY OF BRITISH COLUMBIA — **Vancouver, CA**

- Analyzed **architectural** components of **monolithic** applications, lowering **execution** time to **67%** through **optimal VM** type selection.
- Refactored to **microservice** architecture, notably improving **performance** by **15%** and turning down **architectural decay** by **14%**.
- Designed a **cost-optimization algorithm** shrinking **AWS** costs by **27%**, co-authored an **IEEE** paper, Kuber: Cost-Efficient Microservice Deployment Planner; **full-stack** development employing Python, JavaScript, Java, Spring Boot, Docker, Kubernetes, SQL, and AWS.

Software Development Engineer — **August 2019 - January 2020**
KPIT TECHNOLOGIES — **Pune, IN**

- Created a comprehensive **Common Vulnerability Scoring System**, bolstering security measures and amplifying protection by **35%**.
- Devised **robust** code to assess system security, detect threat levels of **malware** attacks, and mitigate risks by **15%** across endpoints.
- Improved overall security framework **efficiency** by **32%**, diminished potential threats by **27%** through architectural **optimization** and used **frontend** & **backend** technologies - NodeJS, Python, ReactJS, Java, Docker, SQL, Git, and AWS, reinforcing system **resilience**.

Software Development Intern — **July 2018 - December 2018**
INDIAN INSTITUTE OF TECHNOLOGY - BOMBAY (IIT-B) — **Mumbai, IN**

- Intensified efficiency of **Smart Foundry Lab**, accelerating data transfer rate to the **central server** by **30%** using **CI/CD** and **DevOps**.
- Integrated **25+ sensors** for temperature & humidity measurement, enabling data **visualization** and dropping **response** time by **14%**.
- Developed **10+** interactive **Machine Learning** based dashboards, magnifying **critical metrics**, performance, and **decision-making**.
- Architected **25+** REST **APIs**, incorporating NodeJS, PHP, Python, React JS, Firebase, Docker, AWS, Machine Learning, and Tableau.

PROJECTS

SMART SYSTEM TO REDUCE FOOD WASTAGE | Python, Image Processing, Artificial Intelligence, Machine Learning, AWS, React JS, Git

- Conducted research for food waste **reduction** and devised a system to calculate leftover food **accurately**, depleting waste by **37%**.
- Constructed a smart system with **microcontrollers** to quantify leftover food through **image processing**, achieving **81% accuracy**.
- Implemented technical solutions at **three university dining** to incentivize **sustainable** food practices and to **abate** food waste.

KINECTO-THERAPY | React JS, PostgreSQL, Python, Artificial Intelligence, Machine Learning, Docker, Kubernetes, AWS, Flutter, Git, CSS

- Led a **fully-funded startup** project sponsored by **NewGen IEDC India**, aimed at revolutionizing **healthcare** with a budget of **$5,000**.
- Crafted an influential **AI-powered** game to alleviate body pain and **disabilities**, offering therapeutic benefits, **tested** on **250+ users**.
- Innovated **AI-driven** solutions to enhance users' well-being satisfaction by **25%** through **interactive** and **therapeutic** interventions.

EDUCATION

Master of Science - Computer Science & Information Technology — **December 2024**
ARIZONA STATE UNIVERSITY — **Phoenix, USA**

SKILLS

Languages:	Python, JavaScript, TypeScript, Java, PHP, C Language, HTML, CSS, Data Structures, Algorithms, OOP
Frameworks:	Node JS, Next JS, Spring Boot, Flask, Django, React JS, Angular 12, Jasmine, Flutter, REST API, AJAX
Database & Cloud:	MySQL, PostgreSQL, SQL, MongoDB, Firebase, Kafka, Docker, Kubernetes, AWS, Azure, CI/CD, JSON
Tools & Platforms:	Git, Jenkins, Matlab, Tableau, Hadoop, Spark, Artificial Intelligence, Machine Learning, Terraform, NLP

AWARDS & CERTIFICATIONS

- AWS Certified Solutions Architect Associate (SAA-C03)
- Arizona State University Engineering Graduate Fellowship, Arizona State University Chuck & Judy Backus Scholarship