

BHUVNESH SINGH KUSHWAH

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PROFESSIONAL EXPERIENCE

Sendcrux.ai : Backend Engineer

May 2025 – Sept 2025

- Designed and deployed an in-house **Python-based AI Voice Agent** utilizing **WebRTC** and custom **TTS/ASR pipelines**—eliminating vendor costs and increasing system control.
- Engineered a scalable, undetectable **headless browser automation** framework (**Selenium** + Custom **Chromium Patches**) to bypass detection, boosting domain reputation to **90%+** on Gmail/Workspace.
- Architected and deployed high-throughput **Microservices** on **Docker + Kubernetes**, significantly improving system reliability, horizontal **scalability**, and throughput for internal automation tools.

Personaliz.ai : Backend Engineer

Jan 2023 – April 2025

- Built and optimized **asynchronous workflow pipelines** using **Celery/BullMQ** for **large dataset processing**, third-party integrations, and automated data enrichment, enhancing system reliability.
- Collaborated with ML and Product teams to design **scalable backend architecture**, ensuring **high availability** and consistent performance for user-facing services.
- Optimized database performance via **MySQL indexing, query tuning**, schema normalization, and slow-query analysis, reducing data retrieval latency and significantly improving **API efficiency**.

Persistent Systems : Summer Martian Internship

Sep 2023 – Oct 2023

- Gained foundational expertise in robust **System Design**, complex debugging, and **backend service development** through mentor-led, real-world projects.

Summer Of Bitcoin 2023 : Blockchain Developer Internship

May 2023 – Nov 2023

- Actively contributed to the open-source **BitcoinJS ecosystem**, enhancing **BIP39 JavaScript libraries** and improving wallet-related functionality and code quality.

PROJECTS

Lipsync-Diffusion-Model | Github Link

2025

Enhanced fork with Apple Silicon (MPS) support

- Implemented core **audio-to-mouth prediction pipeline** (mel-spectrograms → face decoder).
- Added **Real-ESRGAN, GFPGAN**, and **Stable Diffusion inpainting** for photorealistic post-processing.

Promptfare | Github Link

2025

Intelligent Flight Search Platform.

- Built **MCP (Model Context Protocol) server** enabling **AI assistants** to query live flight data via 4 custom tools.
- Developed anti-bot bypass **automation** using **SeleniumBase** with cookie rotation and session management.

Crypto Wallet Manager | Github Link

2024

Smart Multi-Crypto Wallet.

- Built secure local wallet storage with encrypted credentials and transaction utilities.

TECHNICAL SKILLS

Languages & Backend: JavaScript, TypeScript, Python, Go, C++, Node.js, NestJS, FastAPI, Microservices

DevOps: CI/CD, Docker, Kubernetes, Terraform, Jenkins, NGINX

Databases & Cloud: MySQL, MongoDB, Redis, ElasticSearch, Firebase, AWS (EC2/S3/IAM)

AI & Automation: Selenium, Browser Automation, PyTorch, TensorFlow, Whisper, TTS/ASR, OCR

Tools: GitHub, Bitbucket, PM2, Celery/BullMQ, CDN, Ansible, Postman

EDUCATION

Computer Science, Bachelor of Technologies

Jul 2024

Lakshmi Narain College Of Technology Excellence, Bhopal, Madhya Pradesh

8.7 CGPA

CBSE 12th Board

2020

St. Josheph's Co-Ed Higher Secondary School, Bhopal, Madhya Pradesh

81.2%