SUMIT GHOSH

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EDUCATION

Indian Institute of Technology Delhi   New Delhi
Integrated BTech and MTech in Computer Science   2016 – 2021

CERTIFICATIONS

AWS Certified Solutions Architect Associate   Link
Familiarity with designing cloud infrastructures in AWS.

PROJECTS

ArtSea *Web3, React*   artsea.skghosh.me, github.com/SkullTech/ArtSea
- ArtSea is a web3 app for minting and auctioning NFTs.
- Wrote two smart contracts: the NFT collection and the NFT marketplace. The marketplace allows listing an NFT up for auction, bidding on live auctions, and finalizing an auction by selling it to the highest bidder. The contract acts as a escrow service between buyers and sellers as well.
- Wrote an interactive SPA using React, using all the React best practices.
- Technologies used: Ethereum, Solidity, Polygon, React, Mantine, Hardhat, Metamask, ethers.js, IPFS, OpenZeppelin.

Drymail *Python, SMTP*   github.com/SkullTech/Drymail
- Drymail is a minimalist wrapper over Python's existing smtplib and email libraries, designed to be friendly but unrestrictive.

EXPERIENCE

Harmonic Labs   hlabs.xyz
Backend developer   Apr 2021 – Nov 2021
- Wrote unit tests for microservices which constitute a big data pipeline. The resulting increase in test coverage significantly improved uptime.
- Refactored and overhauled the design of a few key microservices, which led to parallelisation and almost 100x improvement in speed.
- Wrote a modern, production grade API layer using FastAPI, to be consumed internally and by customers.
- Was on-call for a few weeks and resolved all production bugs that came up.
- Technologies used: GCP, GKE, FastAPI, PostgreSQL, Python, Docker, Redis, Event Sourcing, CircleCI, PyTest.

American Express   americanexpress.com
Sofware Engineering Intern   May 2020 – Jul 2020
- Worked on the enterprise infrastructure monitoring platform.
- Developed an automation tool that aided in self-healing of systems which experience disk space related issues.
- Technologies used: Ansible, Elasticsearch, Kibana, Splunk, RabbitMQ.

Department of Computer Science and Engineering   IIT Delhi
System Administrator   Sep 2017 – Jul 2021
- Implemented an Oauth authentication system to be leveraged by apps within the infrastructure.
- Maintaining the computer systems and networks, responding to support requests.
- Technologies used: Linux, Apache2, Reverse Proxy, VM, DNS, DHCP.

Freelancing and Contract Work   Various Companies
Software Developer   Jan 2016 – Present
- Worked with about 50 clients so far, ranging from solopreneurs to medium-sized businesses.
- Technologies used: Python, Selenium, Flask, Django, AWS, QT, Scrapy, Celery, Redis, PostgreSQL, MySQL, Nginx, SMTP, IMAP, DNS, Bootstrap, UIKit, Linux.

SKILLS

Programming Languages: Python, JavaScript, Solidity, Rust
Frameworks: FastAPI, Flask, Django, Pytest, React, QT
Infrastructure: Linux, Blockchain, Ethereum, Solana, Docker, IPFS, Redis, PostgreSQL, MySQL, AWS, Serverless, GCP, Netlify.
Tooling: Hardhat, Anchor, Metamask, Phantom, Git, PyCharm, VS Code, Remix.