PRATIKSHA SHRESTHA

347-686-1391 | pratiksha.shrestha97@gmail.com | linkedin.com/in/pratiksha-shrestha | github.com/prati1 | prati1.github.io

SUMMARY

Software developer with 5+ years of experience in frontend and backend development, building scalable web applications and RESTful APIs using Node.js, Python, AWS, and modern JavaScript frameworks. Demonstrated expertise in serverless and microservices architecture, blockchain development, SQL query optimization, and performance tuning to deliver high-performing applications.

TECHNICAL SKILLS

Languages and Runtime Env: Node.js, Python, JavaScript, TypeScript, PHP, Solidity, HTML, CSS, Shell Script
Frameworks and Packages: React.js, Vue.js, Express.js, Flask, Laravel, jQuery, Hardhat, NPM, Selenium, Jest, Chai
Databases: MySQL, MongoDB, MariaDB, DynamoDB, Oracle Autonomous Database, Redis
Cloud Platform: Amazon Web Services (Lambda, EC2, S3, API Gateway, RDS, Batch, ECS, IAM, Cognito, SQS, SES)
Tools and Technologies: Microservices, Git, Linux, Docker, CI/CD, TDD, DRY, DApp, Ajax, Nginx, Agile, Jira

EXPERIENCE

Graduate Full-Stack Developer | *Myaamia Center, Miami University, OH*   Aug 2022 – Present
- Designed and built intuitive web admin panel for language revitalization, enhancing engagement and accessibility.
- Led **database architecture design** and development for a dynamic survey management and data analysis platform. Supported **10+ survey types**, implementing **advanced filtering, sorting, and data mapping** across interconnected survey databases.
- Implemented Progressive Web Application (PWA) features to enhance performance and user experience.
- Developed a tool for efficient uploads and **streamed downloads** for large files on AWS S3, **preventing web wait timeout** issues.
- **Migrated** legacy monolithic applications to microservices model hosted in AWS EC2 using AWS API Gateway.
- Integrated **OAuth 2.0 authorization** to secure API endpoints and enhance user authentication process.

Tech Stack: *Laravel, Node.js, React.js, jQuery, JavaScript, AWS, MariaDB, Docker, Rest API, Puppet, Nginx, DLV2*

Software Developer | *Proshore, Netherlands (From Proshore Nepal)*   Mar 2019 – June 2022
- Led development of B2B web applications in **cross-functional Agile team of 7-10 members**.
- Achieved **400% performance boost** with targeted **database optimization**, and codebase enhancement (5x faster response time.)
- Parallelized large data transformation and integration in Python with factory pattern and **multi-threading** capabilities.
- **Optimized SQL queries**, re-indexed tables, implemented client-server database model and horizontal scaling with **database partitioning** and sharding to reduce server load and improve performance.
- Reduced load times by 30% leveraging **lazy-loading and write-through caching strategy** with Redis ElastiCache.
- Implemented e-commerce **data synchronization** across 4 third-party vendor systems for improved data accuracy and efficiency.
- Engineered **continuous deployment pipeline** reducing deployment time by 70% with improved release and rollback process.

Tech Stack: *Node.js, TypeScript, Python, JavaScript, Express.js, Flask, ASP.Net Core, MySQL, DynamoDB, AWS, Docker, Kubernetes, Redis, jQuery, Vue.js, Knex.js, Mollie API, Filezilla, FTP, SMTP, cXML, Jira, Postman, Selenium, Chai*

Associate Software Enginner | *GrowByData Services, Nepal*   Aug 2018 – Feb 2019
- Researched and implemented **search engine optimization (SEO)** strategies resulting in increased visibility of e-commerce stores.
- Incorporated search engine spidering, crawling, indexing, and set up campaigns for **A/B testing** and report generation.

Tech Stack: *JavaScript, PHP, jQuery, Shopify, Magento, WordPress, ABTasty, Screaming Frog, Google Analytics*

EDUCATION

Master of Science in Computer Science | *Miami University, Oxford, OH* | CGPA: 4.00   Aug 2022 – Aug 2024
Publication: A case study on Blockchain-based Anonymous Reviewer Incentive Token [**Accepted at IEEE SMC 2024**]

Bachelor of Engineering in Computer Engineering | *Kathmandu University* | CGPA: 3.63   Aug 2014 – Oct 2018

PROJECTS

Review Rewards | *Solidity, TypeScript, React.js, OracleDB, Python, Hardhat, OpenGSN, Foundry*   Jan 2023 – July 2024
- Developed and deployed secure, privacy-focused web3 application for academic peer review on Ethereum network implementing Soul Bound Tokens (non-transferable NFTs) and ERC-20 tokens to incentivize reviewers.

SuggestAbook | *Python, Flask, React.js, MongoDB, Numpy, Pandas*   May 2020 – Apr 2023
- Literary journal platform to keep a record of books read, memorable quotes, and relatable character experiences. Supports tailored book recommendation feature using k-Nearest neighbor approach on user-item sparse matrix based on current read.

LEADERSHIP AND CERTIFICATIONS

ICAgile Certified Professional   Apr 2024

Women Leaders in Technology (WLiT) | *Fellowship Technical Trainer*   Aug 2018 – June 2022
- Conducted web development sessions in Node.js, JavaScript, and jQuery at WLiT bootcamp 2020/21 and 2021/22.
- Mentored undergraduate female students, guiding them toward their professional aspirations and nurturing leadership abilities.