BIBEK SHRESTHA

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Work Experience

University of Nevada, Reno — Reno, Nevada
Graduate Research Assistant — *Aug 2019 - Current*
- Perform research on SDN, data plane programming, edge computing in High-Performance Computing & Networking lab.
- **Reduced the task completion time by 30%** using In-band Network Telemetry to make scheduling decisions at the edge.
- **Technologies:** Python, C++, NS3, SDN, P4, Node.js, Azure IoT, Socket Programming

Kalysys.com — Nepal (Australia, HQ)
Full Stack Engineer — *Nov 2018 – May 2019*
- Helped the company grow from its first client to onboarding many clients in the cloud-based CRM platform for SMEs.
- Collaborated on backend architecture, API design, multi-tenant database design, and third-party services integrations.
- Improved the **response time of the REST APIs by 25%** through query consolidation and leveraging caching.
- **Technologies**: JavaScript (Node.js, React), Auth0, PostgreSQL, AWS, SCSS, REST

LIS Nepal Pvt. Ltd — Lalitpur, Nepal
Sr. Software Engineer — *Aug 2018 - Dec 2018*
- Directed the standardization of development stack, code reusability, automated CI/CD, and testing. This alleviated the complexity of bootstrapping new projects, thereby reducing the **completion time of the new projects by 10%**.
- Led the integration of NEPSE Online Trading System (Online Stock Exchange System of Nepal) with major banks enabling online direct payments for the first time in the platform. This resulted in an increase in **user transactions by 20%**.
- **Technologies**: Java, Angular, Jenkins, REST

YCO Pvt. Ltd — Lalitpur, Nepal
Software Engineer — *Nov 2015 - Aug 2018*
- Contributed to multiple high-impact projects that catered to the digitization process of Nepal.
- Worked on the development of Nepal's first and the only fully automated online stock exchange system. The average daily **turnover of NEPSE increased by more than 65%**. Commercial banks vying for the **broker license increased by 50%**.
- Boosted the application processing **capacity of the Department of Tourism of Nepal by 40%** by eliminating the process bottlenecks through web-based business process automation.
- Implemented a service-oriented information exchange platform between select government agencies of Nepal. The amount of **time spent by the general public to juggle between these agencies halved,** improving the quality of service.
- Coordinated with the teams in multiple regions. Mentored two interns to land full-time positions. Also trained new hires.
- **Technologies**: Java, JEE, Nginx, Angular, CSS, RabbitMQ, Redis, Socket Programming, REST, MSSQL, ORM, Wildfly, Jenkins

Skills

Languages: Java, Python, JavaScript, C++
Technologies: Git, REST, Node.js, Express.js, React, Angular, TypeScript, CSS, HMTL5, Elasticsearch, Microservices, Socket programming, RabbitMQ, Kafka, Redis, MSSQL, PostgreSQL, AWS, Docker, Linux, SDN, Jenkins

Education

University of Nevada, Reno — Reno, Nevada
M.S. in Computer Science and Engineering — *Aug 2019 - Dec 2021 (Expected)*

Tribhuvan University — Lalitpur, Nepal
Bachelor's in Computer Engineering — *Nov 2011 – Oct 2015*

Selected Projects

- **Scheduler leveraging INT** improved data transfer time by utilizing network state at line rate for the edge. IEEExplore
- **Distributed Fabric** A framework allowing users to write distributed applications. The Framework exposes simple API so that users don't have to implement elements of distributed computing themselves. GitHub
- **Imagine DB** A file-based relational database system that supports simple SQL queries. GitHub

Awards/Scholarships

- Recipient of graduate research scholarship at the University of Nevada, Reno.
- Recipient of Mahatma Gandhi Scholarship, which is awarded to the outstanding high school students in Nepal.