Amit Maharjan

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EDUCATION

East Tennessee State University — *Johnson City, TN*
Master's in Computer Science (Software Engineering), GPA: 4.0 — *Aug 2023 - May 2025*

Tribhuvan University — *Kathmandu, Nepal*
Bachelor's in Computer Engineering, GPA: 3.8 — *Nov 2014 - Oct 2018*

EXPERIENCE

East Tennessee State University — *Johnson City, TN*
Graduate Teaching Assistant — *Aug 2023 - Present*
- Instructed and facilitated labs for CSCI-1100 (Using Information Technology) and CSCI-3110 (Advanced Topics in Web Development) across 7 sections, engaging 50-100 students per section in both in-person and online formats
- Enhanced CSCI-1100 curriculum by integrating AI & digital citizenship modules, improving student engagement by 42% and boosting average course performance from C- to B, while also mentoring 3 new Graduate Assistants

Cedar Gate Technologies — *Kathmandu, Nepal*
Software Engineer — *Dec 2020 - July 2023*
- Directed the design, development, and deployment of 2 enterprise web applications and 6 plugins, adhering to Agile methodology with a 4-week sprint cycle and 1-week hotfix period, ensuring on-time releases while maintaining stringent quality standards
- Led and mentored a 15-person development team, conducting structured code reviews, knowledge-sharing sessions, and enforcing best engineering practices, fostering a collaborative and high-performing development culture
- Deployed and maintained authentication services on AWS EC2 with Tomcat, providing local access for 100+ developers
- Built & optimized caching strategies using Redis & AWS ElastiCache, reducing API response times by 35% & improving throughput

Associate Software Engineer — *June 2019 - Nov 2020*
- Implemented an enterprise-wide authentication system supporting 12 Cedar Gate applications with 400K+ users, leveraging Apereo CAS for Single Sign-On (SSO), Spring Security, and SAML, ensuring secure and seamless user authentication
- Designed and implemented a robust user tracking system, leveraging Cronjobs and Amazon SQS to log user activity and automate daily, weekly, and monthly usage reports, improving data analysis efficiency by 40%
- Integrated logging and monitoring using AWS CloudWatch and ELK (Elasticsearch, Logstash, Kibana) to track authentication events, reducing average issue resolution time from 6 hours to 30 minutes through proactive alerting
- Enhanced database performance by designing and refining SQL stored procedures, improving query execution time by 50% and boosting application response time by 30% through query refactoring and indexing strategies

Leapfrog Technology Inc. — *Kathmandu, Nepal*
Software Engineering Intern — *Mar 2019 - May 2019*
- Developed responsive web pages using HTML, CSS, and JavaScript, ensuring smooth user interactions & cross-browser compatibility
- Increased frontend performance by 30% by implementing lazy loading, reducing initial load time & improving overall user experience

Agile Solutions Pvt. Ltd. — *Kathmandu, Nepal*
Software Engineering Trainee — *Nov 2018 - Feb 2019*
- Developed ERP system using Microsoft Dynamics NAV, improving efficiency & automating business processes for KL Dugar Group
- Contributed to the migration of legacy ERP data, ensuring 99.9% data integrity and a seamless transition with minimal downtime

PROJECTS

Hotel Rating System | GitHub Link | *Spring Boot, JWT, REST API, REST Template, Kafka, Feign, Microservice, MySQL, MongoDB*
- Developed microservices-based hotel rating system with 3 services communicating via REST APIs & API Gateway for unified service
- Integrated Apache Kafka for asynchronous microservices communication, ensuring scalability and real-time data streaming
- Implemented dynamic service discovery using Eureka Server and a centralized configuration server via GitHub
- Added authentication using a JWT-based microservice, securing API access through the API Gateway

RMIPSS System | GitHub Link | *ASP .NET MVC, .NET Core, Entity Framework, SQL Server, SMTP2go, Bootstrap, Toastr.js*
- Built web application for the Republic of Marshall Islands Public School System, to digitize IEP processes and reduce manual effort
- Developed dynamic IEP forms with real-time validation, providing user-friendly error messages and ensuring seamless data entry
- Designed user-friendly interface leveraging ASP.NET MVC, Bootstrap, and Toastr.js for improved usability
- Implemented secure authentication using .NET Identity and email notifications via SMTP2go API

University Recommendation System | GitHub Link | *Python, Pandas, NumPy, Scikit-learn, Matplotlib*
- Developed an ML-based university recommendation system to assist international students in selecting US universities
- Trained models (Logistic Regression, Decision Tree, Random Forest, SVM, KNN, Naive Bayes) achieving 84% precision (Decision Tree) & 89.53% recall (Naive Bayes) in admission predictions
- Analyzed admission trends based on factors like GRE scores, CGPA, and research experience to provide data-driven insights

TECHNICAL SKILLS

Programming Languages: Java, C#, Python, C, C++
Frameworks: J2EE, Spring Framework, Spring Boot, Spring Security, JPA, Hibernate, Grails, ASP.NET MVC, .NET Core, Entity Framework
Cloud/DevOps: AWS (EC2, RDS, S3, SQS, IAM, CloudWatch, Kinesis), Docker, Kubernetes, Git, CI/CD (Jenkins, GitHub Actions), Maven
Microservices & API Management: Spring Cloud, Netflix Eureka, API Gateway, Apache Kafka, OAuth2, JWT
Database: MySQL, Postgres, SQL Server, MongoDB, Redis
Front-End: HTML, CSS, JavaScript, jQuery, Bootstrap, Thymeleaf
Others: Apereo CAS, ELK Stack, Jira, Agile Development, Unit Testing (JUnit, Spock, NUnit)