Keeran Dhakal

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SUMMARY

Software engineer with 3+ years of experience building scalable applications, APIs, and microservices. Proficient in various programming languages, databases, and RESTful architecture, with additional exposure to containerization, cloud deployment, and CI/CD practices.

EDUCATION

University of Nebraska Omaha **M.S. Computer Science** **GPA: 3.96** **May 2025**

- Relevant Courseworks**:** Data Structures, Algorithms, Software Design, Cloud Computing, Artificial Intelligence, Natural Language Processing, Computer Vision

SKILLS

- **Programming Languages**: Python, C++, Java, C#, JavaScript, SQL
- **Frameworks & Tools**: Flask, Django, React, Spring Boot, Hibernate, ASP.NET Core, CMake, Git, Linux
- **Cloud & DevOps**: Docker, CI/CD, GCP, AWS
- **Data Processing**: Pandas, NumPy, Scikit-learn, Matplotlib, TensorFlow, Pytorch, Power BI
- **Machine Learning/Deep Learning**: LLMs (GPT, BERT), Transformer Models, GAN, CNNs
- **Soft Skills**: Problem Solving, Teamwork, Leadership, Good Communication, Time Management

EXPERIENCE

Graduate Research Assistant **Aug 2023 - May 2025**

University of Nebraska at Omaha – NLPKR Lab, Omaha, NE

- Designed and implemented a Constraint Answer Set Programming (CASP) solver system capable of handling 1000+ combinatorial optimization instances, improving solver scalability and expressiveness.
- Built a Dockerized benchmarking infrastructure that automated performance testing across 3+ solver systems, reducing evaluation time by 70%.
- Developed 20+ modular components using C++, Python, and CMake, ensuring high performance, portability, and reproducibility of experiments.
- Collaborated with 2 faculty advisors and 3+ peer researchers on system design and architecture, contributing to research publication submissions.
- Maintained a clean, extensible codebase to support future solver extensions and simplify integration with logic-based toolchains.

Software Engineer **Jun 2021 - Jul 2023**

Docsumo, Remote

- Designed and maintained 10+ high-performance microservices and RESTful APIs using Python and Flask, enabling efficient processing of 30,000+ financial documents across 20+ formats.
- Deployed and managed scalable backend systems in production with Docker, Google Cloud Platform, and CI/CD pipelines, maintaining 99.9% service uptime.
- Built internal data extraction frameworks using machine learning algorithms and LLMs that increased field-level accuracy to 95%+ and reduced document processing latency by 25%.
- Developed and maintained unit and integration test suites with a focus on test-driven development, improving code reliability, and catching 90%+ of bugs pre-release.
- Collaborated with cross-functional teams (Product, QA, ML) during bi-weekly Agile sprints, contributing to 20+ successful production deployments and driving feature delivery from ideation to release.

PROJECTS

EZSMTv3: A Constraint Answer Set Programming Solver

- Built a CASP solver system and integrated SMT solvers to handle logical problem-solving within a custom declarative language, benchmarking solver performance.
- Manuscript submitted for journal publication.

Reproducible Benchmarking Platform for ASP Solvers

- Created a Docker-based infrastructure to compare Answer Set Programming (ASP) solvers with automated evaluation and reporting.

Movie Watchlist App

- Developed backend with Spring Boot, Hibernate (ORM), and MySQL; REST APIs for frontend integration.
- Implemented frontend using React; enabled add/delete movie functionality.

CERTIFICATIONS

- Deep Learning Specialization: *deeplearning.ai, Coursera*
- Machine Learning: *Stanford University, Coursera*