

DEVA SAI KUMAR BHEESETTI

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FULL-STACK SOFTWARE ENGINEER — SCALABLE SYSTEMS & AI INTEGRATION

+1 (978) 942-1632 Lowell, MA

PROFESSIONAL SUMMARY

Full-stack software engineer with under 3 years of professional experience in software development, backend systems, and AI integration. Skilled in designing and deploying scalable microservices and LLM-powered applications across AWS and Kubernetes environments. Strong foundation in API architecture, data pipelines, and automation systems, with a focus on building reliable, efficient, and maintainable software solutions.

CORE TECHNICAL SKILLS

Languages: Python, Java, JavaScript, SQL, C++

Frameworks: FastAPI, Flask, ReactJS, Node.js, PyTorch, TensorFlow

Systems & Cloud: AWS (S3, EC2, Lambda, SageMaker), Azure, Docker, Kubernetes, GitHub Actions, CI/CD

Data & ML: Pandas, Scikit-Learn, Hugging Face, LangChain, DeepSeek, LLaMA 3, Longformer

Databases: PostgreSQL, MySQL, Oracle SQL

Tools: Kafka, Airflow, ETL Pipelines, Kibana, Tableau

EXPERIENCE

Graduate Research Assistant — AI & Healthcare

Jan 2024 – Aug 2025

University of Massachusetts Lowell

- Engineered multi-label ordinal prediction pipeline using Clinical Longformer and DeepSeek-R1; achieved 92.6% ±1 accuracy (MAE 0.235).
- Deployed CUDA-optimized training on multi-GPU nodes reducing epoch time by 34%.
- Implemented active learning and token-attribution explainability for clinician review.
- Collaborated with a cross-disciplinary team of data scientists and clinicians to validate model predictions and improve interpretability.
- Presented research outcomes in AI & Healthcare symposiums, contributing to manuscripts and grant proposals.

Graduate Assistant — Software Development & Data Automation

May 2024 – Aug 2025

Manning School of Business, UMass Lowell

- Built FastAPI microservices and Google Apps Script automation reducing manual tasks by 70%.
- Containerized testing and LMS grading pipelines with Docker and GitHub CI/CD.
- Engineered data flows and real-time dashboards for academic analytics (Tableau + SQL).

Technology Analyst — Module Lead, Pega Decisioning

Aug 2022 – Aug 2023

Infosys Ltd — Client: Verizon

- Designed REST API interfaces connecting ReactJS front-end and Pega Decisioning Hub.
- Improved system throughput 20% via asynchronous queue processors and agent automation.
- Led 4-member cross-functional team; resolved critical production outages under tight SLAs.

Associate Business Analyst — Pega Developer

Dec 2020 – Aug 2022

Infosys Ltd — Client: Verizon

- Built enterprise workflow automations and reusable API components for offer management.
- Automated deployment pipelines with SQL and Kibana logging; boosted release stability 30%.

SELECTED TECHNICAL ACHIEVEMENTS

Reduced model inference latency by 30% through CUDA optimization and dynamic batching of transformer pipelines. Improved system throughput by 20% by redesigning asynchronous queue processors and API orchestration in Verizon's Pega Decisioning Hub.

Automated academic data workflows saving 70% manual effort via containerized Python + FastAPI microservices and Google Apps Script pipelines.

Fine-tuned transformer models achieving $92.6\% \pm 1$ accuracy on multi-label ordinal classification tasks.

Led cross-functional engineering teams (onshore + offshore) and resolved critical production outages under tight SLAs.

SELECTED PROJECTS

Monitoring Platform for Predictive Failures: Built AIOps system using LSTM + Prophet for real-time anomaly detection with AWS SNS alerts.

AI Code Review Assistant: Integrated DeepSeek-Coder into GitHub Actions to automate PR analysis and feedback loop.

Personal AI Knowledge Assistant: Developed LangChain + Chroma vector search assistant with offline Streamlit UI.

Thesis Project – Ordinal SDoMH Prediction with LLMs: Built biomedical NLP pipeline using Clinical Longformer + DeepSeek-R1 with CORN ordinal heads and CEM-ORD loss; achieved $92\% \pm 1$ accuracy (MAE 0.235) and deployed active-learning refinement.

Watermark Faculty Automation System: Automated AACSB data uploads using Python + Selenium + GPT-formatted inputs, cutting manual data-entry time by 70%.

EDUCATION

Master of Science in Computer Science University of Massachusetts Lowell	Aug 2023 – Aug 2025 GPA: 3.94
Bachelor of Technology in Electronics & Communication Engineering K L University, India	2016 – 2020 GPA: 3.52

CERTIFICATIONS

Certified Pega Senior System Architect (CSSA) | Certified Pega Decision Consultant (CPDC) | IBM Data Science Professional | Google IT Automation with Python | Applied AI with Hugging Face Transformers

LEADERSHIP

Mentored engineers, led cross-functional Pega and AI modules, collaborated with clients and research teams.