

HIMAL SUBEDI

Nepal | +977 9823535600 | itishimalsubedi@gmail.com

Portfolio: www.himalsubedi.com | GitHub: [link](#) | LinkedIn: [link](#)

RESEARCH AND TECHNICAL INTERESTS

Applied software systems; recommender systems; demand forecasting; heuristic search; research software engineering

EDUCATION

Bachelor of Computer Applications (BCA)

2020-2025

Tribhuvan University, D.A.V. College, Lalitpur, Nepal | Delayed by COVID-19 academic-calendar disruption.

Academic Record: CGPA 3.21/4.00 | Final-Semester GPA 3.74/4.00 | Final Capstone (Project III) 4.00/4.00

Selected Coursework: Machine Learning, Data Analysis and Visualization, Cloud Computing, Software Engineering, Operating Systems, Advanced Java Programming, Network Programming, Artificial Intelligence

SUPERVISED ACADEMIC INDIVIDUAL PROJECTS

DigiMart: Recommendation and Demand Forecasting Platform

Nov 2025

Supervised Individual Undergraduate Capstone | Supervisor: Er. Ishan Pokhrel

GitHub: [link](#) | Technical report: [link](#) | Dataset: [link](#) | Live Demo: [link](#)

Technologies: Python, Flask, Node.js, Express.js, MongoDB, pandas, NumPy, scikit-learn

- Designed and implemented an ecommerce platform with a Node.js/Express/MongoDB recommendation service and a Python/Flask forecasting API.
- Built a weighted content-based recommender that forms user profiles from recent purchase, view, and cart activity and ranks products using category, brand, price, rating, and parsed description-feature matches.
- Developed a custom ARIMA-based forecasting engine using log transformation, seven-day additive trend, standardization, differencing, autocorrelation-based AR estimation, residual-based MA estimation, and approximate AIC-guided order search.
- Used a public 20,000-transaction electronics-sales dataset spanning September 2023 to September 2024 to construct daily revenue and category-demand series and generate 7- and 15-day forecasts.
- Evaluated the forecasting model on a chronological holdout set, achieving 8.5% MAPE, MAE of 12,079, and RMSE of 14,765, with forecast outputs visualized against historical sales trends for model-performance assessment.

8-Puzzle Game and A* Solver

Nov 2024

Supervised Individual Undergraduate Project | Supervisor: Er. Nihal Shrestha

GitHub: [link](#) | Technical report: [link](#) | Live Demo: [link](#)

Technologies: JavaScript, PHP, MySQL, HTML, CSS

- Implemented A* search with g- and f-score tracking, Manhattan-distance heuristic evaluation, closed-state checking, and predecessor-based reconstruction of solution paths.
- Validated puzzle input and solvability using inversion parity, generated random solvable states, and animated each reconstructed solution step on an interactive 3x3 grid.
- Integrated manual gameplay, user authentication, solve-time tracking, and leaderboard functionality in a web application.

TECHNICAL SKILLS

Programming: Python, JavaScript, PHP, SQL

Backend and Web: Node.js, Express.js, Flask, Laravel, REST APIs

Databases: MongoDB, MySQL

Tools and Platforms: Git, GitHub, Linux, DigitalOcean, XAMPP, Vercel

PROFESSIONAL EXPERIENCE

- Backend Developer and IT Consultant - S.K. Shoes, Nepal

Jun 2026-Present

 - Re-engaged part time to administer production hosting and maintain and extend the retail website originally developed during the GTD Technologies internship.
 - Manage deployments, production troubleshooting, and ongoing feature support based on operational requirements.
- Backend Development Intern - GTD Technologies, Nepal

Jan-Jun 2025

 - Developed a footwear retail website in a three-person team as the sole backend developer, owning Laravel backend architecture and MySQL database design.
 - Deployed the system to a DigitalOcean VPS via SSH and trained the client on day-to-day system use

VOLUNTEER EXPERIENCE

- Resource Person - Child Development Society (CDS) Nepal

Sep 21-Dec 22, 2025

Computer and Online Safety Awareness Program

 - Facilitated digital literacy and online-safety sessions for Grades 8-10 across community schools in Kathmandu, Kirtipur, and Chandragiri.
 - Taught phishing, malware, password security, digital privacy, cyberbullying prevention, and responsible digital citizenship through practical, age-appropriate lessons.

ACADEMIC RECOGNITION

- Academic Recognition, D.A.V. College - Recognized for earning a 3.74/4.00 GPA in the final BCA semester, 2025.

TRAINING AND ACTIVITIES

- Residential DevOps Workshop, D.A.V. College

July 2-4, 2025
- Volunteer Referee, 3×3 Basketball Tournament (BCA Cup), D.A.V. College

July 20, 2024
- Digital Marketing & Social Media Training, D.A.V. College

June 12-17, 2023
- Life Skills & Leadership Workshop, World Vision — 13-day training program.

Dec 9-21, 2021