

# PRABESH ARYAL

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## EDUCATION

**Baku Engineering University, Azerbaijan**  
*Bachelors in Computer Engineering*

July 2026  
*Current GPA: 90.12/100*

**Kathmandu Model Secondary School, Nepal**  
*National Examinations Board*

December 2021  
*GPA: 3.08/4.0*

**Relevant Coursework:** Principles of Entrepreneurship and Introduction to Business, Engineering Economics, English for Business and Academic Communication, Basics of Computer Engineering, Basics of Programming (C & C++), Web Systems and Technologies, English for Academic Purposes, Linear Algebra and Analytical Geometry, Circuit Theory, Mathematical Analysis, Physics, Object Oriented Programming (Java), Data Structures and Algorithms, Computer Architecture, Basics of Electronics, Discrete Mathematics, Operating Systems, Database Systems, Digital Systems, Modern Programming Languages (C# & .NET), Differential Equations, Internet Technologies, Computer Graphics, Computer Networks, Civil Defense, Machine Learning, Computer Modeling, Computer System Security, Artificial Intelligence, Probability Theory and Mathematical Statistics

**Awards:** Azerbaijan Government Scholarship 2022

## PUBLICATIONS

**Algorithmic Bargaining: Usability, Challenges, and Market Implications in Dynamic Pricing Systems**

May 2025

*Journal of Baku Engineering University (BEU), ISSN 2521-635X*  
 DOI: 10.30546/09090.2025.01.1090

- Conducted research on dynamic pricing systems and interactive bidding algorithms, analyzing usability, market implications, and societal impacts. Focused on e-commerce applications and algorithmic negotiation. Explored ethical considerations, fairness, and transparency in pricing models, examining consequences for competition and consumer welfare.

## EXPERIENCE

**Technical Lead & Solutions Architect | Etudy Go - etudygo.com**

July 2025 – Present

- Architected and deployed a cloud-native student mobility platform using Google Cloud Run, Docker, and Kubernetes, optimized for millions of users.
- Led frontend development, implementing robust form handling, authentication, and interactive session management.
- Contributed to backend development with Java Spring Boot, resolving critical inconsistencies and integrating APIs.
- Implemented CI/CD pipelines and managed Cloud SQL, Cloud Storage, and IAM for reliability and performance.
- Developed a Telegram bot for system-level monitoring and error reporting to enhance real-time operational insight.
- Directed technical strategy, framework selection, and deployment pipelines, driving alignment between business vision and technology scalability.

**Full Stack Developer | Hyperce.io (Remote, Nepal Primary Residence)**

Aug. 2025 – Present

- Work remotely for Hyperce.io, a global eCommerce solutions provider, with Nepal as my primary residence.
- Design and implement backend algorithms and custom solutions for logistics, shipping, quick/bulk edits, etc. using Vendure.
- Manage AWS infrastructure, including logging into EC2 instances and handling deployments, monitoring, and troubleshooting.
- Collaborate with international teams to deliver scalable, vendure-powered e-commerce platforms and ensure robust backend operations.

**Software, DevOps & Full-Stack Engineer | Freelance Developer, Founder, and Designer** Oct. 2019 – Sept. 2025

- Engaged in diverse Python projects and web development, including advanced web applications, cloud computing, server management, and automation for several clients.
- Specialized in scraping, scripting, bot and chatbot creation, and full-stack development.
- Proficient in AI/ML, cybersecurity, and system administration, demonstrating expertise across various Python applications and solutions.
- Handled the complete lifecycle of website development, including designing, developing, and deploying for domains like **innovative-eco-krishi.com.np**, **dri-jay-ghimire.com**, **essence-treks-nepal** and many more.
- Gained extensive experience in full-stack development, server management, and cloud deployment, utilizing technologies like **React**, **Next.js**, **Node.js**, **Python**, **Django**, **FastAPI**, and integrating **CI/CD pipelines**, **Docker**, **Kubernetes**, and **Terraform** to streamline deployments.
- Focused on automation, scalability, and security while delivering production-ready solutions with modern UI/UX interfaces.

### Hacker Hero | *Content Creator*

Aug. 2016 – July 2022

- Specialized in video production, editing, and design.
- Gained proficiency in Adobe Suite and honed skills in YouTube content creation.
- Learned the intricacies of video editing, scripting, and audience engagement.
- Achieved a significant milestone by earning my first income at the age of 19 through creating and posting video content.

### Volunteering & Nepali Startups | *Contributor and Volunteer*

2019 – 2022

- Contributed to several Nepali startups, including **Clamphook**, an EdTech platform, where I engaged in various development and organizational roles.
- Volunteered in diverse initiatives such as **Nepal Scouts**, **Mathematics Initiatives in Nepal**, and **Students Reunion**, showcasing a strong commitment to community development and youth engagement.

## PROJECTS

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### Music App - Complete Music Streaming Platform | *ASP.NET Core, SQL Server, MVC, Bootstrap* June 2025

- Developed a full-stack music streaming platform with ASP.NET Core, featuring music management, social interactions, and admin tools.
- Implemented JWT & Cookie-based authentication, role management, and RESTful APIs (50+ endpoints, 12+ DB models, 11+ API controllers).
- Designed a responsive frontend with MVC & Bootstrap (30+ Razor views, 7+ MVC controllers) and single-handedly built the enterprise-level application.

### AI/ML Projects | *Java, Python, TensorFlow, SQLite, YOLOv8, OpenCV, EasyOCR, Flask* March 2024 – Nov. 2024

- Built a Female Health Tracker app (Java, TensorFlow, SQLite) with cycle logging, AI-period prediction, symptom tracking, and a Flask backend API.
- Developed an AI system (Python, YOLOv8, OpenCV, EasyOCR) to detect vehicles/license plates from video, extract text, and overlay data for real-time tracking.

### DalbhatPowerBot | *Telegram API, Playwright, BeautifulSoup, JSON, AIOHTTP, RapidAPI* Aug. 2022 – Present

- Created an automated Telegram bot for multimedia downloads, social media scraping, and Nepali utilities.
- Integrated APIs and reverse-engineered platforms like Twitter, Reddit, TikTok, Instagram, and Facebook.
- Enabled advanced downloading of photos, videos, and audio (up to 2GB) with yt-dlp and optimized pipelines.
- Developed Nepali calendar, horoscope, dictionary, and stock market utilities using modular JSON storage.
- Bypassed CAPTCHA and access restrictions to ensure 99% uptime and fast responses.

## SKILLS

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**Languages:** Python, C, C++, Java, JavaScript, C#, PHP, HTML, CSS, SQL, jQuery, GraphQL, L<sup>A</sup>T<sub>E</sub>X

**Frameworks:** React, Redux, TypeScript, Node.js, Express.js, Material-UI, Django, Flask, D3.js

**Cloud & DevOps:** Google Cloud, AWS, Docker, Digital Ocean, Alibaba Cloud, Heroku, Vercel, Kubernetes, Docker

**Design & Animation:** Adobe XD, Figma, Photoshop, Inkscape, Canva, GIMP, Maya Animation, Blender

**Video Editing & Effects:** Adobe After Effects, Adobe Premiere Pro

**Tools:** Git/GitHub, Unix Shell, Webpack, VS Code, IntelliJ CLion/PyCharm/IDEA, Visual Studio, Powershell, Bash

**AI/ML:** PyTorch, TensorFlow, scikit-learn, YOLO, Hugging Face, Seaborn, Keras, FastAPI, ML Model Deployment, Data Preprocessing, Feature Engineering, NLP, Neural Networks, Computer Vision, STT, TTS, RAG; Proficient with AI models (GPT, Claude, Gemini) & agents (Copilot, Cursor)

**Databases:** MySQL, SQLite, PostgreSQL, Microsoft SQL Server, Oracle Database, MongoDB, Redis, Firebase, DynamoDB, Cloud Storage Buckets, BigQuery

**Libraries:** pandas, NumPy, Matplotlib, Selenium, OpenCV, EasyOCR

## LEADERSHIP & ACTIVITIES

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**International Students' Club of Baku Engineering Uni.** | *Board Member / Acting VP* Feb. 2023 – Present  
Progressed from Social Media Manager (2nd Semester) to Acting VP (6th Semester), now managing all club operations with full rights. Spearheaded event organization, strategic communications, and international student guidance, fostering a dynamic and supportive community.

**Class Representative/Captain** | *Horizon G.B.S. School, Kathmandu Model Secondary School* 2013 – 2021  
Served as the Class Representative, recognized as one of the best CRs for effective leadership, communication, and coordination between students and teachers. Managed class activities, resolved conflicts, and ensured smooth communication between the class and school administration.

## INTERESTS

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**Technical Interests:** Physics, Quantum Science, Cryptography, Evolution, Mathematics, Geopolitics, History

**Languages:** Nepali (Native), English (Proficient), Hindi (Proficient), Azerbaijani (Beginner)

**Soft Skills:** Leadership, Communication, Problem-Solving, Teamwork, Critical Thinking, Adaptability