Ngawang Samdrup

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Education

University **Graduation: May 2025**
Bachelor of Science in Information Systems Management *York College, Jamaica, NY*

- Academic Excellence in Information Systems Management | **GPA: 3.984**
- Courses: Computer Science I & II, Database Management, Data Mining & Analytics, Fundamentals of Cybersecurity, Information Systems Security Management, Discrete Structures

Work Experience

Uptown & Boogie Healthy Project **Jul 2025 – Sep 2025**
Software Engineer Intern *Heyground Harlem, NY*

- Developed and deployed a full-stack AI-powered recipe chatbot using Python, OpenAI API, semantic classification, and ChromaDB vector retrieval, reducing user recipe search time by 50% on the Uptown & Boogie website through deployment on Google Cloud Run.
- Built and styled a fully responsive frontend interface using React and Next.js, enhancing website interactivity and accessibility for over 100 users by seamlessly integrating the AI chatbot into the Uptown & Boogie production site via Vercel.
- Managed environment-specific backend access by configuring secure environment variables to support both local development and cloud deployment workflows.

CISE Summer Visiting Research Program **May 2025 – Jun 2025**
Research Intern (Machine Learning) *York College, NY*

- Delivered real-time image recognition on a Raspberry Pi, reducing on-device inference load and latency by deploying a CNN with an edge-to-server pipeline that offloaded computation to a networked laptop.
- Advanced machine-learning research on CNNs and IoT deployment, achieving sustained real-time processing on resource-constrained hardware by designing, implementing, and testing a lightweight inference workflow across the Raspberry Pi and a laptop server.
- Contributed to an NSF-funded collaboration at York College and Stevens Institute of Technology, producing reproducible deployment procedures and experiment results by coordinating experiments and documenting the Raspberry Pi–to–server setup for the research team.

CUNY Immersive Research Experience (CIRE) **Aug 2024 – May 2025**
Researcher (Large Language Models) *York College, NY*

- Authored 2 papers—"Prompt Engineering: Unlocking Better Responses from LLMs" and "Generative AI in Education: Exploring Ethical Challenges and Solutions"—with 1 paper accepted for publication at ICBMEIS-2025 by leading literature review, experiment design, analysis, and writing.
- Designed and ran LLM benchmarking across fine-tuning, prompt engineering, and retrieval-augmented setups, establishing performance baselines and documenting mitigation strategies by building reproducible datasets, comparison prompts, and evaluation scripts.
- Presented research as posters at the Queens College Research Conference and the Undergraduate Research Conference at John Jay College, disseminating findings across two academic venues by preparing a conference-ready poster and delivering in-session explanations and Q&A.

Projects

Fitness Tracker | *Source Code*

- Developed a C++ desktop application to manage and track user fitness activities, utilizing modular classes for real-time exercise tracking and user data management.
- Enhanced functionality and user experience by implementing BMI calculation, activity sorting, and interactive menu navigation, applying object-oriented programming principles for maintainability.

Leadership & Honors

- **Valedictorian**, York College — Class of 2025. *Announcement*
- **Academic Excellence in Information Systems Management**, York College (2025).
- **Dean's List**, LaGuardia Community College & York College (2022–2025).
- **Leadership Decision-Making**, Selected for the Gumbo Coalition University program; applied strategic problem solving and team collaboration.

Technical Skills

Languages: C++, Python

Developer Tools: Google Cloud Run, Git, Docker

Tools: Microsoft Word, Excel, Access, Visual Studio Code, Figma, PyCharm