Qendrim Beka

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INVOLVEMENT

Founder/President - University Club

uAlberta Blockchain Society • October 2024 - Present

- Participated in weekly discussions on blockchain developments.
- Collaborated with 20+ members on decentralized solutions.
- Organized events to share insights with the campus community.
- Gained hands-on experience through practical projects.
- Executed a product launch strategy that increased market penetration by 30% within three months, utilizing targeted digital marketing campaigns and leveraging data analytics tools to track user engagement and conversion rates.

Interdisciplinary Case Competition

NeuroAlbertaTech • March 2025

- Won $300 for 2nd place out of 17 teams, recognized for innovation and real-world applicability.
- Presented findings to judges, effectively communicating algorithmic decisions and system impact.
- Developed an AI-driven team formation algorithm using simulated annealing to optimize skill balance and role diversity.
- Designed a composite scoring system leveraging multi-factor data metrics.
- Built a real-time simulation & visualization dashboard to dynamically display team optimization and track sorting.
- Integrated a blockchain token-based gamification model for sponsor engagement, voting power, and participant incentives.

natHACKS

NeuroAlbertaTech • November 2024

- Collaborated with a team to build NeuroNavScore.
- Developed a scoring system for Alzheimer's detection through maze navigation and EEG brainwave scans.
- Achieved first place in the NeurAlbertaTech NatHACKS2024 Hackathon.
- Secured $4,000 in seed funding as the winning prize for the problem providers division.

PROJECT

Decentralized US Election Voting Simulation System

github.com/qbeka/us-2024-election-sim

- Developed a blockchain-based voting simulation system to visualize US election predictions state-by-state in real-time.
- Implemented a mock blockchain voting mechanism, recording each vote as an immutable transaction to demonstrate transparency, privacy, and security in a decentralized election system, with a vote log of over 2500 simulated votes logged in real time.
- Created a dynamic and interactive US map with progressive state color changes, reflecting live vote counts for Democrat and Republican parties, providing users with a visually engaging experience.
- Technologies: Python, Node.js, React, HTML/CSS, JavaScript, D3.js.

NeuroNavScore

github.com/NeuroNavScore/hackathon2024

- Alzheimer's Detection Through VR and EEG (natHACKS 2024 First Place).
- Developed a VR-based navigation system integrated with EEG analysis to detect early neuronal changes associated with Alzheimer's Disease.
- Measured 150 shifts between allocentric and egocentric strategies as early cognitive markers in navigation tasks.
- Integrated EEG to monitor brain activity in regions linked to memory, spatial navigation, and executive function.
- Provides a non-invasive tool for early detection of cognitive decline, aiding Alzheimer's research and intervention.
- Technologies: Brainflow, OpenBCI, Unity, Python, C#.

EDUCATION

Bachelor of Science in Computing Sciences

Minor in Philosophy • University of Alberta • Edmonton, AB, Canada • Sophomore - Year of 2027

- First Class Academic Standing

SKILLS

Team-Building, Teamwork, Leadership, Time Management

Software Development, Mobile Applications, Machine Learning, Algorithms, Python

Communication, Pattern Recolgnition