OZANER HANSHA

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EDUCATION

Cornell University, New York, NY   Sep. 2022 - June 2023
Master of Engineering in Computer Science | GPA: 3.75
Merit Scholarship
Relevant Coursework: Machine Learning Engineering, Deep Learning, Data Science,
Startup Studio, VR/AR, App Infrastructure

Rutgers University, New Brunswick, NJ   Sep. 2018 - May 2021
Bachelor of Science in Computer Science, Mathematics, & Cognitive Science | GPA: 3.73
Minor in Philosophy.
Honors: Magna Cum Laude, Dean's list, High honors in Computer Science and Cognitive Science
Relevant Coursework: Data Structures & Algorithms, Computer Architecture, Probability Theory, Linear Optimization,
Differential Equations, Numerical Analysis, Deep Learning, Foundations of Quantum Mechanics

TECHNICAL SKILLS

Languages:	Rust, Python, JS/TS, C#, NoSQL/SQL, HTML/CSS, Dart, Java
Libraries/Backends:	PyTorch, NumPy, Pandas, GCP, Firebase, Flutter., Vector DBs
Tools/Other:	Git, Github CI/CD, LLMs, Linux, Prompt Eng

EXPERIENCE

Dedroid Systems, Lead Developer   April. 2024 - Present
Realtime LLM Conversational Agents (Rust, Python)
- Creating customizable **conversational agents** that can understand users' speech, visual inputs (e.g. screens, cameras), and perform complex tasks (e.g. playing Minecraft, browsing the internet), and respond with expressive avatars.
- **Highly optimized** for human-like **response times** in low level Rust, with Python interop for speech synthesis..
- Agents make use of a filterable **long term memory** allowing them to remember and make use of past thoughts and conversations.

HotTakes, Co-founder/Lead Developer, New York, NY   Jan. 2023 - Dec. 2023
Audio-based Social Map app (Typescript, Firebase, Flutter, Dart)
- A mobile app that allows friends to share audio reviews about arbitrary locations on their own personal map.
- Finalist in Cornell Tech's startup awards. With 300+ users using the app.
- **Led the development of the app** which included implementing a frontend optimized to display and record **live geolocation data**, a **scalable backend**, along with security schemes, and LLM integration to enable AI features like **semantic summarization and recommendations**, CI/CD pipelines, as well as app store/testflight integration.
- Also project lead responsibilities include mentoring and directing Jr. developers and implementing systems to streamline the UX to developer pipeline.

Twitch, Software Engineering Intern, Seattle, WA   June 2021 - Sep. 2021
- Developed a web service in Go to collect, consolidate, and display metrics on the health of other Twitch services.

PROJECTS

qRNG, (Python)
Cloud-based quantum random number generator
- Created an **open source Python package** that generates random numbers & data using IBM's publicly available quantum computers on the cloud. **Over 18,000 downloads** via the Python package index.
- Implements quantum algorithms for integer and floating point number generation.

Zorua, (Rust)
Optimized serialization/deserialization library for Rust
- A Rust library that enables the **fast serialization/deserialization** of binary data.
- Adds **procedural macros** that can create data structures that are zero-copy and endian-aware, and adds **new syntax** in Rust for adding bitfields to structs.

pkuManager, (C#, Dart, Python)
A universal file format & file manager for Pokémon
- **Created a universal format** for storing Pokémon as files, as well as **an application to store, catalog, and convert** these files into other formats without loss of information.
- Enables cross-compatibility between 20+ games via conversion between multiple file formats.

LEADERSHIP

HackRU, Executive Director, New Brunswick, NJ   Dec. 2018 - May 2021
- Directed 6 subteams organizing one of the largest hackathons in the country.
- Coordinated with vendors, sponsors, non-profits, and administration.
- Held semesterly at Rutgers University with 600+ participants from colleges around the country.
- Successfully handled the migration to online in response to COVID, with its myriad technical and logistical difficulties.