Sanjeev Kalagony

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EDUCATION & CERTIFICATIONS

University of Waterloo   **Sep 2024 - Apr 2029**
Candidate for Bachelor's Degree in Mathematics, specializing in Data Science
Relavent Coursework: Designing Functional Programming, Linear Algebra, Graphic Design, Calculus, Microeconomics, Statistics & Probability

PROFESSIONAL SKILLS

Languages: Python, C, C++, HTML, CSS, Javascript, React, Node.js, Typescript, Tailwind CSS, Vite
Development Tools: Git, Figma, Photoshop, Raylib GameEngine, Kaggle, AWS, Bash, Pygames, Gemini API, OpenAI API, GCP, Pandas, Seaborn, NumPy, Pytorch, Microsoft Suite
Kaggle & AWS Certifications: Introduction to Python, Python Developement, Intro to AWS

RELEVANT PROJECTS

HearMeOut – AI-Powered Interview Assistant @ UofTHacks 12   dorahacks.io   **Jan 2025**
- Developed an AI-powered platform to improve interview skills by providing personalized feedback and insights from interviewer's POV
- Built backend using **Google Gemini API**, enabling the analysis of resumes and generating unique, role-specific interview questions
- Implemented **Eleven Labs' Voice Cloning API** to create AI-generated responses in the user's voice, offering feedback on tone, clarity, and communication style for enhanced self-awareness.
- Designed and created an intuitive and r**esponsive web interface** using **React (TypeScript)**, Vite, and libraries like Lucide React and React Router to ensure a seamless user experience.

SkillScan – Personalized AI Career Platform @ Geesehacks   devpostlink   **Jan 2025**
- Designed and **developed an intuitive web platform using React** to enhance the user experience with responsive and clean design.
- Implemented **AI-driven resume analysis using OpenAI's GPT-4 API** to provide users with personalized, actionable feedback.
- Integrated multiple APIs (OpenAI, Google Cloud) to ensure seamless functionality for resume parsing, feedback and question generation.
- Built a **mock interview module leveraging Google Cloud Speech-to-Text** for real-time transcription.
- Optimized browser-based video recording using React Webcam to provide users with realistic, low-latency mock interview experiences.
- Collaborated on technical challenges, including API rate limits, video processing, and error handling, resulting in a cohesive platform.

Data Science Project: Analyzing Spotify Song Trends githublink   **Feb 2025**
- Conducted an i**n-depth analysis of 30,000 Spotify songs** to identify trends across various criteria such as popularity, release year etc.
- Utilized **Pandas** and **NumPy** to clean, manipulate, and analyze large datasets efficiently.
- Created insightful graphs using **Matplotlib** and **Seaborn** to showcase trends in tempo, energy, danceability, and other key metrics.
- Discovered correlations between song popularity and audio features, **highlighting patterns in genre trends** over time.
- Optimized data handling using **efficient Pandas operations**, reducing processing time through **batch computations** and minimizing memory usage with **data type optimizations**.

PONG game in C++ githublink   **Nov 2024**
- Developed a version of PONG in C++ using the Raylib engine; Added scoring system and movement mechanics by adding physics

EXPERIENCE

RESEARCHER   *TechPlus UWaterloo*   **May 2025 - Present**
- Conducted research and data analysis using **Pandas** and other **Python libraries** to assess how underpresented groups are using tech.
- Provide insights through to guide diversity, equity, and inclusion (DEI) initiatives and programming decisions.
- Collaborate with team members to evaluate internal culture and hiring practices for inclusivity and equity.
- Support the development of tech resources to increase accessibility and representation across Tech+ events and outreach.

SPONSORSHIP LEAD *NASA Space Apps Waterloo*   **June 2025 - Present**
- *Built customized sponsorship packages and pitch decks aligned with partner goals and event audience*
- *Led outreach, calls, and negotiations to secure sponsor commitments and finalize agreements*
- *Coordinated with logistics, design, and finance teams to track deliverables and allocate sponsor funding*
- *Managed sponsor relations before, during, and after the event, ensuring visibility and follow-through*

MATH TUTOR *Varsity Tutors Waterloo*   **Mar 2025 - Present**
- Improved student **performance by 20%** through tailored lesson plans, reinforcing fundamentals, and applying real-world problem-solving
- Designed interactive lessons using online tools, visual explanations, and collaborative coding environments to enhance virtual learning
- Built student confidence by teaching critical thinking, test-taking strategies, and study habits for **long-term academic success**.
- Taught Grade 6 to 11 Math, Advanced Functions and Calculus, High-school Physics, English and French

REGIONAL LEAD   *Illuminate Universe Student Programme*   **Jun - Sep 2023**
- **Developed** a consulting pitch for Illuminate's marketing team using **marketing data** which aimed to **boost PR by 30%**
- **Analyzed** effectiveness of various marketing strategies with **data modeling software** to interpret **trends** in viewership

SWIMMING/LIFESAVING INSTRUCTOR   *City of Brampton Recreation*   **Jul 2024 - Present**
- Taught swim skills with proper technique, adapting lessons to different learning styles (visual, auditory, kinesthetic).
- Used both direct and indirect instruction to accommodate varied learning needs and assessed student progress