Diego Crisafulli

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SOFTWARE DEVELOPMENT

To transform industries and enrich human experiences by merging advanced AI, simulation engineering, and 3D artistry. Guided by a passion for immersive innovation and a proven track record in VR/AR, generative AI, and interactive design, I strive to pioneer breakthroughs that solve real-world challenges, empower teams, and shape the future of cutting-edge technology.

EDUCATION

Concordia University September 2022 - May 2026
B.S, Science & Arts in Computer Science & Computational Design, GPA: 3.0, Achievements: Presented At the neuro Hospital for doctors, my VR neuro project

Marianopolis September 2020 - May 2022
DEC, Commerce, GPA: 3.0

SKILLS

Technical Skills:
Languages: Python · JavaScript/TypeScript · Java · C++ · Go · SQL · PowerShell · Bash · HTML/CSS
Frameworks & Libraries: React · Next.js · Node.js/Express · TensorFlow · React
Cloud: AWS (EKS) · Azure (Event Hub) · Docker · Terraform · CI/CD (GitHub Actions, Jenkins) · Red Hat OpenShift
AI: Machine Learning · Generative AI (OpenAI, Claude) · Computer Vision · Prompt Engineering · PostgreSQL · MongoDB

Leadership & Business Skills: Agile/Scrum · Cross-functional collaboration · Team leadership & mentoring · Lead of intern group · Stakeholder communication · Asset management · A/B testing · AI product strategy · Risk assessment · Technical writing & presentations

WORK EXPERIENCE

CAE.inc **Montreal QC**
Software Engineer intern May 2025 - August 2025

- Built real-time monitoring with DPDK/VPP + Azure Event Hub, reducing downtime 25%. • Automated IaC with Terraform, decreasing configuration drift 20%.
- Deployed microservices on AWS EKS, improving resilience and scaling capacity.
- Managed and maintained version control repositories for multiple projects, ensuring accurate tracking of changes and seamless integration of new features.
- Developed and implemented advanced algorithms to optimize simulation processes, resulting in a 20% reduction in computational time and improved accuracy in engineering analyses.

CAE.inc **Montreal QC**
Software Developer Internship September 2024 - May 2025

- Developed and optimized automated test scripts (JavaScript, XML, JSON), boosting testing coverage and reducing defects.
- Proposed continual improvements to IVR functionality and user experience, driving measurable gains in customer satisfaction.
- Analyzed test outcomes, identified root causes, and collaborated with cross-functional teams to enhance system reliability.
- Orchestrated the software architecture design process at CAE.inc, leading to a 20% increase in system efficiency and a 15% reduction in development time.

CAE.inc **Montreal QC**
Software engineer Intern August 2023 - September 2024

- Developed Python data pipelines for sensor processing, reducing inconsistencies by 25%.
- Collaborated in Agile sprints to refine system architecture and enhance module cohesion.
- Optimized LiDAR and infrared sensor simulations in C++, increasing efficiency by 24%.
- Utilized advanced programming languages and methodologies to optimize software performance, leading to a 25% reduction in loading times and improved overall user experience.

PRESAGIS **Montreal QC**
Simulation Developer Intern & Team Lead May 2022 - June 2023

- Developed ML-driven point-cloud workflows for robotic perception
- We were in communication with NVIDIA as a research team under the CTO (Chief of Technology Operations), used NVIDIA's new tools, like digital twin creation with machine learning capabilities
- Presented outcomes to stakeholders, authored internal papers
- Prototyped a digital-twin pipeline with NVIDIA Omniverse, reducing manual modeling 25%.

PRESAGIS **Montreal QC**
3D Developer Internship September 2021 - June 2023

- Python development and automation
- 3D modelling, mapping, and other techniques to create graphics, visual effects, and animations in Unreal Engine and NVIDIA Omniverse
- Collaborating with developers and attending meetings to discuss ongoing projects.

PROJECTS

Neural Narratives | VR Collaboration Mcgill Neuroscience Montreal Neurological Institute–Hospital

- Lead VR/AI Developer, The goal was to translated neuroimaging data into an immersive VR application; improved visualization accuracy 50%
- Coordinated cross-disciplinary teams (engineers/researchers) and aligned milestones
- Profiled and optimized rendering, reducing frame rendering time
- Unreal engine, Blender, Digital twin Creation with C++

The Actual Informer | Website Montreal QC

- Built a full-stack web app that ingests live NewsAPI articles, rewrites them with GPT-4o-mini, and synthesizes audio via ElevenLabs, logging all prompts and parameters in MongoDB for transparency.
- Implemented a bias toggle that generates left- and right-leaning versions of the same story, demonstrating how prompt engineering and hyper-parameter choices shape narrative framing.
- Orchestrated a Node.js/Express pipeline (Heroku) with Redis caching and automated checks (sentiment, semantic similarity) for scalable, reliable AI-driven transformations.

INTERESTS

Certifications: linked in - Business administration & cloud frameworks
Interests: Environment, Leadership, building, improving, VR/AR, generative AI, interactive design, solve real-world challenges,
Languages: English, French, Spanish