# Roman Huts

647-XXX-XXXX | ___@gmail.com | linkedin.com/in/romanh/ | github.com/rhuts

## EDUCATION

**University of Toronto** — Toronto, ON
*Honors Bachelor of Science with Distinction, Computer Science Specialist* — *2015 – 2020*

## EXPERIENCE

**Senior Software Engineer, Developer Solutions** — 2020 – Present
*AMD* — *Markham, ON / Remote*
- Improved encoding efficiency by 30% for AMD GPU users by integrating AMD's **AV1 encoder** into OBS with around **20 million users (C/C++).**
- Enhanced Pre-Analysis and Pre-Processing component performance by up to 15-fold by implementing **hardware accelerated** versions of CPU based algorithms **(OpenCL / DX11 / DX12 / Vulkan / C++)** in the AMF SDK (GitHub), improving the user experience for up to **285 million users** of AMD GPU drivers worldwide.
- Delivered 9 public AMF SDK releases, resolved **80+ external developer issues**, and hundreds of internal bugs.
- Promoted from Software Development Engineer 2 (2022). Chosen as speaker at the **Former Co-op eSpeakers Panel** infront of **170+** students.

**Software Developer Intern, Game Engine Integration** — 2018 – 2019
*AMD* — *Markham, ON*
- Improved SDK robustness by fixing over 20 bugs for AMF and LiquidVR SDKs such as eGPU support **(C++).**
- Expanded support for AMD products by integrating **FreeSync 2 HDR** into **Unreal Engine 4 (C++)**.
- Enhanced AMF SDK code quality by taking ownership and maintaining 98% up time for the team's Jenkins CI/CD automation server **(Python / Bash / Groovy)**.

**IT HelpDesk Intern** — 2017 – 2018
*IMAX, Corporate Office* — *Mississauga, ON*
- Shortened setup time for new hires by 5-fold by developing tool to automate setup **(PowerShell/XAML)**.

**Teaching Assistant** — 2017
*University of Toronto* — *Mississauga, ON*
- Invigilated and marked midterm examinations, held reoccurring tutorial sessions for groups of 30 students.

## BUSINESS PROJECTS

**NDIO Customs** | *Node, Javascript, HTML, design and development of e-bikes and lithium battery packs*
- Awarded $1^{st}$ **place winner** for Special Construction class custom build at the North American International Motorcycle Supershow(2023).

**DataSocial.pro** | *Python, MongoDB, Selenium*
- Improved outreach of online brands by **65%** by profiling and scraping thousands of brand ambassadors.

**Licensing Lead Generation for Music Use** (DCSIL Program) | *Android Studio, Java, Flask, Python, Heroku, Redis, MongoDB*
- Lead team development of cross platform app for generating non-confrontational leads.
- Pitched to **multiple leaders** in the **music licensing** industry space such as BMAT USA and Dataclef (subsidiary of SOCAN). (MVP Tech Demo)

## AWARDS

- CG Recognition award for shipping **AV1** with **OBS** (AMD 2022)
- Spotlight award for role in **version control system migration** (AMD 2021)
- Recognition award for **outstanding** co-op **mentorship** (AMD 2021)
- Nominated for Innovation Showcase for Shader Optimization Benchmark Tool (AMD2021)

## TECHNICAL SKILLS

**Languages**: C++, C, Python, Bash, JavaScript, SQL, Solidity, HTML, CSS, Groovy
**Computer Graphics**: OpenCL, DirectX11, Vulkan, DirectX12
**Developer Tools**: Visual Studio 2022, VS Code, Git, Perforce, JIRA, Confluence, GDB, GPUView, Valgrind, RadeonGPU Analyzer, Elecard StreamEye Stream Analyzer
**Operating Systems**: Linux, Windows