## Harsh Mathur

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A tinkering enthusiast seeking to develop a culmination of skills in research and industry, all the while interrogating the workings of the world **EDUCATION** 

•	ke University – Fratt School of Engineering   GFA: 5.800	(2022-2026)
	Computer Science (B.Sc); Mechanical Engineering (B.Sc) – Aerospace Certificate	
	- Computer Architecture CS250, Elements of Machine Learning, Graph Analysis with Matrix Computation	
	- Mechatronics & Systems Controls - information processing, transient response analysis, signal-flow graphs	s
	- Solid Mechanics/Dynamics, Material Sciences, Aerodynamics	
TECI	HNICAL SKILLS	
Skills	- Embedded Systems: C/C++, Arduino, MIPS Assembly; Processes: Java, Python, R, VBasic; Full-Stack Web Dev	v: React.js/MERN
Stack,	Figma; Mechanical Design - CAD: Solidworks, Ansys (Fluent), Fusion 360, Autodesk Suite, VR/XR: GMetri Eng	zine, Unity
RELE	EVANT EXPERIENCE	
•	Backend Developer, Materials Data Repository MATD <sup>3</sup>   Duke Ab Initio Materials Simulations	(2023-Present)
	- Developed optimization protocols in the open source MATD <sup>3</sup> directory, an NSF-DMREF funded project	ct
	- Refactored installation code and starter configuration file for installation streamlining, boosting collaboration	ion potential
	- Awarded the maintenance position of the open source project assisting the growth, outreach, and accessib	ility of development
•	Engineering Intern – Trio Labs	(Summer, 2024)
	- Developed a Node.js web-application implementing the Autodesk Viewer API designed to isolate and view	w complex assemblies
	- Initiated the construction of an indigenous inventory management system utilizing Visual Basic for proces	ss automation
•	User Experience Engineer, GMetri XR (gmetri.com) (0	Gap Year, 2020-2021)
	- Ideated, programmed, and deployed VR modules for multinational companies' engagement exercises - Pa	ypal, Accenture, etc.
	Developed data driven design for VP retail experiences for eligents including renewned fashion designer )	л. 1.1.3.0.11 .
	- Developed data-driven design for vik-retail experiences for clients, including renowned fashion designer	<u>Aanish Malhotra</u>
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## ACADEMIC PUBLICATION

Mathur, Harsh. "Low-Cost Method Qualitatively Verifying the Role of Blowing Jets in Improving Airflow across Airfoils Experiencing Flow Separation." *Journal of Emerging Technologies and Innovative Research* 8, no. 12 (December 31, 2021): 48–53.

**Mission Statement -** I call myself a tinkering *enthusiast* because I'm curious to learn and apply them in areas that better lives. I spent my freshman summer in Manzini, Eswatini building a bridge over the life-taking Ngwempisi river. My sophomore summer was spent at a metal 3D printing firm that engineers parts at the micron scale for healthcare devices. I learned more about happiness, teamwork and purpose than I could have imagined from these experiences, and I'm excited to apply them in every venture that lies in my future.