

# Arsh Sharma

Website: [sov-trotter.github.io](https://sov-trotter.github.io)

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## EDUCATION

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- **National Institute of Technology** Hamirpur, India  
*Bachelor of Engineering in Electronics and Communication; Current GPA: 3.4 (8.52/10.0) Aug. 2018 – May. 2023\**
- **Mount Carmel School** Palampur, India  
*Indian School Certificate Examination(ISC-CISCE); Percentage: 91% Aug. 2018*

## EXPERIENCE

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- **Julia Computing** Cambridge, MA  
*3D Visualization Intern* *Sept 2021 - Present*
  - **JuliaSim**: Working towards adding visualization support for simulations on a cloud-based simulation platform.
- **Google Summer of Code** Remote  
*Student Developer* *June 2021 - Sept 2021*
  - **Javis.jl**: Added features like layers, livestreaming, morphing etc. to Javis, a Cairo based 2D animation library for mathematical and scientific visualizations.
- **Julia Season of Contributions** Remote  
*Student Developer* *May 2020 - Sept 2020*
  - **JuliaGeo**: A GeoSpatial data handling ecosystem for the Julia language. Simplified the GIS pipelines to read and view data in Julia, right from parsing it to a Tabular format and be able to plot it, all withing 4 lines of Julia code.

## PROJECTS

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- **IBMQJulia.jl**: A package written in Julia that uploads quantum circuits generated by Yao.jl to IBM-Quantum, that runs quantum circuits on real quantum computers. Implemented the [OpenQasm specifications paper](#) composing two major units, the REST API and the Yao IR to QObj parser.
- **Hardware based cache miss detector**: Design of Cache Memory with cache controller using VHDL for detection and mitigation of cache misses.
- **Random.org client**: A client library that fetches true random numbers from Random.org, developed for Julia and Matlab

## PROGRAMMING SKILLS

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- **Languages**: Julia, Javascript, C++, Matlab, Python, Java
- **Courses/Certifications**: Introductory Genomics, IBM Quantum Challenge

## MISCELLANEOUS

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- **Positions of Responsibility**
  - **Founder & President - Julia Student Developer Club**: A club aimed at educating students about best programming practices and open-source engagement through The Julia Language.
  - **Secretary - Team ISTE**: Organized multiple online as well as offline events to promote technical education and skill building for more than 1k students across India.
  - **Joint Secretary - Hult Prize**: Organized the Hult Prize OnCampus program in my institute to promote social entrepreneurship and events aimed at the SDGs laid out by the United Nations.
- **Hobbies and Interests**: Music, Outdoor sports, Gaming, Travelling