PARITOSH SHARMA

Grad Student

Université Grenoble Alpes - ENSIMAG

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Research

Laboratoire d'Informatique de Grenoble - TEAM GETALP   *Grenoble, France*
Advisor: Dr. Didier Schwab   *Feb. 2020 - Sept. 2020*
- Thesis: "Interaction methods for eye tracking in games for cognitively disabled people"

Projects

Personal   *Gurgaon, India*
Simulator for Mass Spring Systems   *Dec. 2018*
- WebGL demonstration for Mass Spring Systems using popular algorithms like Implicit/Explicit Euler, Verlet Integration, etc.

KDE   *Grenoble, France*
Qt3D Backend for KStars   *May 2020 - Jul. 2020*
- 3D backend for planetarium software KStars
- Support for Astronomical projections

Education

Université Grenoble Alpes - ENSIMAG   *Grenoble, France*
MS Informatics   *2019 - 2021*
- Specialization in Graphics, Vision and Robotics
- M1 Thesis in interaction methods for eye tracking

SRM University   *Ghaziabad, India*
B.Tech. CSE   *2015 - 2019*
- Thesis in Finger Tracking
- Advisor: Mrs. Priyanka Sharma

Professional Experience

Nov. 2018 - Apr. 2019	**Intern**, Gesture Research
May 2018 - Aug. 2018	**Student Developer**, Godot - Google Summer of Code
Dec. 2017 - Jan. 2018	**Intern**, Cusmat Technologies

Skills

Computer Graphics

Physics based animation(Rigid and Soft body simulation), Path tracing, BRDF and microfacet theory, differentiable rendering and noise functions(worley, perlin).

Mathematics

Linear algebra, Multi-variable Calculus, Euler Integration, Optimization(gradient descent and back-propagation), sampling and Monte Carlo estimators.

Computer Science

C++, OpenGL, GLSL, Unity3D, multi-threading, Python, Matlab/Octave, Tensorflow, Java, HTML, CSS, JS(three.js and phaser.js), Git, Linux, Qt, CMake, automatic differentiation, scalable algorithms, Inkscape, GIMP and OpenShot.

Language

English and Hindi(native), French(Beginner)

Additional Information

Invited Talks

Summer 2020. *Qt3D backend for KStars*. Invited talk: KDE Akademy 2020

Honors

2020	**Campus France**, Charpak BCS Master's Scholarship	
2011	**17th UCMAS Abacus and Mental Arithmetic International Competiton**, 1st Runner Up	*Malaysia*
2014	**Technothlon, IIT Guwahati**, All India Rank 44	*India*

Other Work

2018	**Robinhood Army**, Volunteering and teaching at local slums	*India*
2020	**Association de la fondation étudiante pour la ville**, Volunteer	*France*
2020	**INTEGRE**, Organizer for Integration Events	*France*

Other Interests

Hiking, Climbing, Soccer, Chess, Shogi, History of digital and board games