Curriculum Vitae

◆ **Zhang Yutao**
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EDUCATION BACKGROUND

◆ **Peking University**   09/2016 - 06/2020

Degree: Bachelor of Arts

Major: French

GPA: 3.56/4.00

◆ **Universite de Montreal**   09/2020 – 12/2022

Degree: Bachelor of Sciences

Major: Computer Science

Teaching language: French

GPA: 4.236/4.30

Mention of excellence for the trimester Winter 2021, Summer 2021, Autumn 2021, Winter 2022

Scholarship of excellence UdeM for the Year 2021

Scholarship of excellence American Express for the Year 2021

Scholarship of excellence UdeM for the Year 2022

◆ **Universite de Montreal**   01/2023 – now

Degree in progress: Doctor of Philosophy

Direction: Computer Graphics

GPA: 4.15/4.30

ACADEMIC INVOLVEMENT

◆ Competition: Shuori Cup of Beijing Area, the 10th National Computer Design Competition for College Students   05/2017

Achievement: The first prize in the software application and development

◆ Undergraduate research: *A Study on the Borrowed Words in Arabic*

Be responsible for the programming of corpus processing and borrowed words recognition

05/2018 – 10/2019

◆ Course experience:

Computer graphics: WebGL, animation, linear blend skinning, shading, texture, ray tracing.

Geometric modeling and shape analysis (Graduate course. Final grade: A+):

- Mesh subdivisions
- Mesh analyzing (FEM, Laplacian, eigenvalues) and fairing
- Mesh deformations (ARAP, AHAP)
- Screened Poisson surface reconstruction (Project): A simplified python version of screened Poisson surface reconstruction for uniform samples with additional smoothing regularization.

Image Synthesis (Graduate course. Final grade: A):

- Rendering, anti-aliasing, textures, illumination.
- Second order EWA (Project): An improved elliptical weighted average texture mapping which corrects the sampling center after perspective projection using second order derivative.

Machine learning:

- Probabilistic graphical models (Graduate course. Final grade: A+)

Representative learning (Graduate course. Final grade: A)

Natural language processing (Graduate course. Final grade: A)

Neural geometry processing (Graduate course. Final grade: A+)

09/2021 – 05/2024

◆ Research experience:

Surfacing 3D Sketched Curve Networks with Minimal Currents: minimal surface reconstruction for non-perfectly structured curve loops using geodesic measure theorem, controlled by space metric and fixed points.

09/2022 – 08/2024

Variational Surfacing of 3D Sketches (accepted to SIGGRAPH ASIA 2025): we introduce a method for reconstructing surfaces from rough or clean 3D sketches, using implicit neural representation and a novel flow-aligned loss.

08/2024 – 05/2025

INTERNSHIP EXPEREINCE

◆ Foreign Language Teaching and Research Press   10/2018 - 12/2018

Editor and Proofreader

Be responsible for editing and proofreading text and audio of dictionary software

◆ Sinopec Engineering (Group) Co., Ltd.（SEG）   07/2019 - 08/2019

Intern of Information Center

Learn the application of SAP software, the principle and operation of BW module, and the principle of database and the development of Oracle; develop and maintain the corporate data reporting website based on the above knowledge and BS development foundation

EXTRACURRICULAR ACTIVITY

◆ Basketball Team of College of Foreign Languages of PKU   09/2016 – 07/2020

Member

◆ Public Relations Department of the Student Union of College of Foreign Languages   09/2016 – 06/2017

Member

Participate in the planning, organization, and development of activities, collect sponsorship for campus activities and edit article for official account.

◆ General Office of the Student Union of College of Foreign Languages   09/2017 – 06/2018

Member

Be responsible for mini-program development and production for publicity and service

PERSONAL SKILL AND HOBBY

Language: French (B2), English, Japanese (nearly N3) and Chinese (first language)

TOEFL (Total: 103; R: 25/L: 26/S: 23/W: 25)

Computer: Python, Java, C++, HTML, Haskell, Prolog…

Music: Singing, Violin

Sports: Basketball, Billiards, Tennis, Ping Pong and Skiing

Computer Games: MOBA, FPS, RPG…