

ZHU Yuanju

Address: Xindu District, Chengdu city, Sichuan, 610500 China

Birthdate: 10/07/1993.

Subject: PhD program application

Education:

2018-2020 Engineering degree^[1], specialized in «management of 3D interactive technologies (MTI3D) » at ENSAM Paristech in France.

2016-2018 Engineering education, specialized in "Innovation of design and materials(ICM)" at Polytech Orléans in France.

2012-2016 Bachelor's^[2] degree in materials science and engineering at university of science and technologies, Beijing(USTB) in China, GPA 3.72.

2009-2012 Student at Xindu No.1 middle school in Chengdu(China).

Contact me:

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Email:

yuannju.zhu@gmail.com

Projects and professional Experiences (2018-2024):

Research fellow at IMATI, Italy (2021.3-2023.5, 2 years)

Development of a customizable immersive training systems for equipment operators^[3,4]. ("PITSTOP: Piattaforma Immersiva per il Training STrutturato dell'OPeratore").

Internship^[6,7] at IMATI-CNR, Italy (2020.2-2020.8, 6 months):

Development of an application for the deformation of shape(mesh), which features user defined functionalities.

Project «Visualization of the growth of material» [8] (2019.10-2020.1, 4 months):

The production of an application based on unity with which we can see the coating of a part after its treatment by the process «physical vapor deposition».

Project« prosthesis of shoulder» (2018.9-2019.1, 5 months):

Accomplished the conception of a shoulder prosthesis with Catia, culminating in the 3D printing of the prosthesis. Pursued in situ tests to evaluate the functionality of the device.

- Internship^[9] «Plasma etching», Japan (2018, 2 months):
- 1, Work on the micro-controller Arduino UNO with two Japanese and one Kazakhstan students for participating in a contest organized by KIT (Kyoto institute of technology, Japan) and the OMERON group. We have designed a rhythm game (an intelligent game box).
- 2, Plasma etching: analysis, studies of specimens' structure with the SEM process (KIT, Japan).
- Internship « production of steel products» (2015.6-2015.8, 1 month):
- 1, Visit of all the production chains in a factory of SHOUGANG GROUP(China);
- 2, Gestion and continuous improvements of a rolling mill, in order to ameliorate its production quality.
- Exchange Student at CSU (Central South University, China) (2015.1-6,6 months):

Completed a semester of study in Metallurgy Engineering at CSU, achieving a remarkable distinction by ranking 4th out of approximately 120 students.

Project SRTP « Student Research Training Program » (2013-2014, 1 year):

Participation of a program SRTP (Student Research Training Program), the subject was the extraction of Sulphur in gold mine.

Volunteer service «Love delivers hope, passion ignites dreams» (2013.7, 1 month)

Languages

- French: capacity professional complete (DELF B2)^[10].
- English: fluent (TOEIC 840, B2)^[11].
- Chinese: mother language.

Others:

- 2020.1: Competition("Défi Chal'enge") in VR development, prize "opportunité économique"[12].
- 2015.11: Scholarship of Renmin, grand prize (limited to one recipient in the college), Outstanding Student with All-Round Excellence.
- 2014.11: Scholarship of Renmin, second prize, Excellent Student Cadre.
- 2013.11: Scholarship of Renmin, third prize, Merit Student.
- 2012.11: Scholarship of freshman.

Achieved notable recognition with a headline feature in the local «Lvliang Daily» paper on 8th July 2013. Successfully organized a multiday donation activity, gathering over 2000 books and raising more than 1250¥ in funds. Demonstrated commitment to education by teaching students in Lvliang, a commitment that spanned 2 weeks.

OTHER EXPERIENCES

- Participation in the organisation of the stand «Come ti comando una macchina» [5] at «science festival» in Genoa (Festival della Scienza, 2022, Genoa).
- Presentation of the work A customizable VR system for operator training, at the CAD 2022 conference.

Publications:

Journal Papers

- F. Giannini, K. Lupinetti, M. Monti, Y.Zhu, L. Mantelli, S. Anastasi, G. Augugliaro and L.i Monica A Customizable VR System Supporting Industrial Equipment Operator Training, Computer-Aided Design & Applications, 20(4), 2023, 716-730 doi: 10.14733/cadaps.2023.716-730
- 2. Giannini F., Lupinetti K., Monti M., Zhu Y., Anastasi S., Augugliaro G., Monica L., Mantelli L., A Customizable Immersive Training System for Operators of Dangerous Equipment, Chemical Engineering Transactions, 91, 349-354. 2022, https://doi.org/10.3303/CET2291059A Customizable VR System

Conference proceedings:

- F. Giannini, K. Lupinetti, M. Monti, Y. Zhu, L. Mantelli, S. Anastasi, G.e Augugliaro and L. Monica A customizable VR system for operator training, Extended abstract in CAD 2022 conference proceedings
- Scalas, A., Zhu, Y., Giannini, F., Lou, R., Lupinetti, K., Monti, M. Mortara, M. Spagnuolo, M., ,A First Step towards Cage-Based Deformation in Virtual Reality, proceedings of Smart Tools and Apps for Graphics Eurographics Italian Chapter Conference 2020, Eds Biasotti, Silvia and Pintus, Ruggero and Berretti, Stefano, The Eurographics Association, ISSN 2617-4855, ISBN 978-3-03868-124-3, DOI 10.2312/stag.20201246

Reports:

- 1. Cage-based Mesh deformation in VR. [6]
- 2. Visualisation de la croissance de matiere.^[8]
- 3. Programming with microcontroller and learning the basics of plasma etching. [9]

Skills:

Computer :

Hardware: HTC-VIVE and Oculus Quest(headset), leap motion controller (hand gesture sensor device).

Software: 3ds max, unity, Microsoft office pack, C#, Python, Arduino, Catia, CES EduPack, Abaqus.

Mathematics :

Origin, MATLAB

Interests:

- Swimming.
- Traveling and discovering new cultures.