# LU ZHENG

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Highly skilled GEO and GIS expert with over 7 years of experience in developing complex geospatial solutions and 3D visualizations using technologies such as three.js and WebGL. Proficient in managing and executing large-scale projects, delivering innovative and data-driven insights, and enhancing user experience through advanced visualization techniques.

#### **EXPERIENCE**

# M.TECH (SINGAPORE)

APRIL 2020 – SEPTEMBER 2023
GEOSPATIAL DEVELOPER

- Led the development of a real-time geospatial data visualization platform using three.js and WebGL, resulting in a 45% increase in user engagement and a 30% reduction in data processing time.
- Managed a team of 12 developers and GIS specialists in creating a comprehensive 3D city model, which improved urban planning decision-making processes by 25%.
- Implemented advanced spatial analysis algorithms that enhanced data accuracy by 20% and reduced computation time by 15%.
- Developed custom plugins for ArcGIS and QGIS that streamlined data integration workflows, increasing productivity by 40%.
- Delivered over 50 training sessions on GIS and 3D visualization for clients and internal teams, boosting overall technical proficiency by 60%.

### **CNSA**

### JANUARY 2015 – MARCH 2020 GIS TECHNICIAN

- Designed and executed spatial data analysis projects for over 100 clients, including government agencies and private sector companies, achieving a client satisfaction rate of 95%.
- Developed interactive 3D maps and visualizations using WebGL, improving user interaction and data interpretation by 35%.
- Conducted a comprehensive geospatial data audit for a major metropolitan area, identifying and rectifying data discrepancies, resulting in a 50% improvement in data reliability.
- Collaborated with cross-functional teams to integrate GIS data with machine learning models, enhancing predictive analytics capabilities by 40%.
- Published 10 research papers on advanced geospatial techniques and 3D visualization methodologies in peer-reviewed journals.

# **FLASHDATA (CHINA)**

MAY 2013 – DECEMBER 2015 GIS DEVELOPER

- Processed and analyzed geospatial data for over 200 projects, ensuring data accuracy and integrity.
- Developed an automated data extraction tool using Python, reducing manual processing time by 60%.
- Created detailed topographic maps and 3D terrain models for environmental impact assessments, contributing to a 30% increase in project approval rates.
- Assisted in the migration of GIS data to a cloud-based platform, improving data accessibility and collaboration across departments by 45%.
- Provided technical support and training to over 150 staff members, enhancing their GIS capabilities and efficiency by 50%.

### **EDUCATION**

CLARK UNIVERSITY, WORCESTER, MA
MAY 2020 - JUNE 2021
MASTER OF SCIENCE IN GEOGRAPHIC INFORMATION SCIENCE
SEP 2016 - MAY 2020
BACHELOR OF ARTS IN ENVIRONMENTAL SCIENCE

#### **CORE COMPETENCIES**

- Programming languages
- Code structure & architecture
- Web performance optimization
- Front-end & back-end web development
- Agile leadership or scrum master
- Agile software development
- Test driven development
- Source control

### **MY SKILLS**

- HTML & CSS
- Javascript
- jQuery
- ES6
- React.js/ReactNative
- Vue.js
- Angular.js
- GraphQL
- Bootstrap
- JSON
- Three.js
- Typescript

- Express.js
- Python
- CodeIgniter
- Wordpress
- Ruby on Rails
- Firebase.com
- MySQL
- WebGL
- Potree
- CESIUM
- GIS
- GEO

- PHP/Laravel
- ASP
- C++
- C#
- Node.js
- Github
- Linux

### **ACTIVITIES & INTERESTS**

- Learning new technology
- Making new friends
- Art

- Skiing
- Travel
- Football & Volleyball