

Lu Liang

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https://luliang-ll.github.io/

EDUCATION

University of Wisconsin-La Crosse, USA

Sep 2019 - May 2021

Master of Software Engineering

GPA: 3.56/4.0

Core Courses: Fundamentals of Info Security (A), Computer Network (A), Software Engineering Principles (AB), Mobile Application Development (A)

Dissertation: **Indoor Localization and Tracking Based on Neural Network.**

Advisor: [Prof. Lei Wang](#)

South-Central Minzu University, Wuhan, China

Sep 2016 - Jun 2019

Bachelor of Engineering in Software Engineering

GPA: 90.42/100 (Top 1%)

Core Courses: Foundation of Computer Science (95), Data Structure (97), Algorithm Design and Analysis (91), Foundation of Software Engineering (95), Linear Algebra (97), Further Mathematics (96), Database Management System (90)

Dissertation: **Face Detection based on Skin Color Model and Face Geometric Features. (Outstanding Undergraduate Thesis)**

PUBLICATIONS

- Houlin Chen, Lu Liang and Lei Wang. (2023). **Improving Indoor Tracking Accuracy through Sensor Fusion: A Low-Cost, Neural Network-Assisted Visual System for Real-time Position Estimation.** *Future Technologies Conference (FTC), San Francisco, United States.* (November, 2023).

RESEARCH EXPERIENCE

Vision Indoor Localization and Tracking based on Neural Network

Aug 2020 - May 2021

Algorithm and Android Developer

- Developed and implemented a vision-based indoor localization and tracking system using a neural network for detecting markers and calculating mobile device coordinates in a 3D environment.
- Designed and constructed the experimental environment, trained the neural network, and integrated visual localization, sensor localization, and neural network techniques for accurate indoor tracking.
- The system achieved indoor device localization and tracking with an impressive error margin of fewer than 0.5 meters.
- These findings were documented in a research paper presented at Future Technologies Conference 2023 and Midwest Instruction and Computing Symposium 2023.

Face Detection System based on Skin Color Model

Dec 2018 - Mar 2019

Algorithm Developer

- Conducted algorithm development work using Matlab for processing experimental data and creating a prototype face detection system based on the skin color model.
- Combined the elliptical skin color model and face geometry features detection method, achieving a remarkable detection accuracy of over 90% after thorough experimentation.
- The thesis based on this project was recognized as the best bachelor thesis at the university.

WORK EXPERIENCE

Cisco Systems, Inc.

Nov 2021 - Present

Software Engineer

Hangzhou, Zhejiang, China

- Develop and maintain Webex App Calendar service, contributing to the enhancement of the core functionalities of the service and gaining hands-on experience in Java backend development.
- Conduct research and implement optimizations in database queries, resulting in a notable 30% reduction in API response time, thereby improving application performance.
- Collaborate closely with Quality Assurance engineers, actively identifying and resolving bugs, which significantly decreased the number of critical issues by 40%, ensuring a stable and reliable software product.
- Assist in the documentation of software design, testing procedures, and user guides, which played a crucial role in

knowledge transfer within the team and ensuring maintainable software.

HONORS & AWARDS

First Prize in Joint Defense of Thesis, Hubei Province Computer Professional Talent Training Cooperation Alliance	2019
Excellent Bachelor Thesis: Top 1% in South-Central Minzu University	2019
Second Prize Scholarship for Academic Excellence, South-Central Minzu University	2018
First Prize Scholarship for Academic Excellence, South-Central Minzu University	2017

KNOWLEDGE SKILLS

Language: Mandarin(native), English (IELTS 6.5, CET-6)

Programming Languages: Java, Python, Matlab

Tools: Git, Kafka, Docker, Redis, LaTeX

Frameworks: Spring, OpenCV, PyTorch, TensorFlow/Keras

Databases: Mysql, Cassandra