# Chen Chen

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#### **EDUCATION**

#### Guangdong University of Technology

Guangzhou, China Sep 2020 — Jun 2024

Bachelor of Engineering in Artificial Intelligence

• CGPA: 3.47/4.00; GPA (Final Two Years): 3.86/4.00; Rank: 13/810.

**Dissertation**: Heterogeneous Subgraph Network with Prompt Learning for Interpretable Depression Detection on Social Media (Excellent Bachelor Thesis Award, 5/153)

Core Courses: Advanced Machine Learning (3.8/4.0), Natural Language Processing (4.0/4.0), Text Information Processing (3.6/4.0), Recognition of Patterns (3.9/4.0), Computer Vision (4.0/4.0), Data Mining (3.9/4.0)

Math Courses: Numerical Analysis (3.7/4.0), Optimization Methods (4.0/4.0), Discrete Math (3.9/4.0), Linear Algebra (3.7/4.0), Digital Signal Processing (4.0/4.0), Theory of Probability & Mathematical Statistics (4.0/4.0)

## RESEARCH EXPERIENCE

Research Interests: Social Media Mining, Sentiment Analysis, Text Mining, Natural Language Processing (NLP), and Graph Neural Networks (GNNs)

Interpretable Depression Detection Method on Social Media Networks Sep 2020 —Jun 2024 The Graph Neural Networks (GNN) Lab, Guangdong University of Technology

- Developed an interpretable depression detection method on social media and explored the heterogeneity of social data and the interactivity of social users
- Found that prompt learning can map users' implicit interpretable psychological symbols, and heterogeneous attention network and subgraph contrastive learning can investigate feature-level and user-level interactions
- Secured two invention patents (CN-2023101434276) and three software copyrights (CCPC-2022SR0708926) based on the outcomes

#### **Enhanced Semantic and Syntactic Graphs**

Jun — Jul 2023

Red Bird Challenge Camp, Hong Kong University of Science and Technology (HKUST)

- Implemented enhanced semantic and syntactic graphs and evaluated their weights via unsupervised learning for fine-grained sentiment analysis in terms of the motion aspect
- Addressed inefficiency and low interpretability in sentiment analysis for space-constrained devices
- Focused on motion-assisted robots
- Presented the findings in multiple presentations, posters, and videos to several research groups
- Relevant publication work is under process.

#### **PUBLICATION**

• Chen Chen, Mingwei Li, Fenghuan Li, Haopeng Chen and Yuankun Lin. Heterogeneous Subgraph Network with Prompt Learning for Interpretable Depression Detection on Social Media. Knowledge-Based Systems, 113215. (JCR Q1, IF 8.8)

#### INTERNSHIP

## China Mobile Information Technology Company

Guangzhou, China

Intern in AI and Big Data Department

Jun — Aug 2023

- Deployed *ChatGLM2* in a live production setting and optimized prompt words to limit the GPU memory use of a single model to under 2GB
- Introduced ChatSQL to enable non-specialist users to interact with databases using natural language
- Improved retrieval accuracy to 85+\%, enhancing the model's applicability in diverse data analyses

#### AWARDS & FUNDINGS

# **Academic Scholarships**

Sep 2020 — Jun 2024

- National Scholarship: Ranked among top 1% in school
- Innovation Scholarship: Awarded to 3% of students
- Excellent Student Scholarships: Awarded to 28% of students

**Fundings** 

Sep 2020 — Jun 2024

- Natural Science Foundation of Guangdong Province (No. 2021A1515012290)
- Guangdong Provincial Key Laboratory of Cyber-Physical Systems (No.2020B1212060069)
- National & Local Engineering Research Center of Intelligent Manufacturing Cyber-Physical Systems

#### Company-Sponsored Scholarship

Sep 2020 — May 2023

• 37 Interactive Entertainment Ltd. and Guangdong Youxin Foundation

## Competitions

- 14<sup>th</sup> "LanQiao Cup" National Software & IT Professionals Competition (Apr 2023): 2<sup>nd</sup> Prize
- Kaggle Competition "NLP of Disaster Tweets" (Apr 2022): Ranked among Top 5%

## TEACHING EXPERIENCE

**Research Assistant** at the *Guangdong* University of Technology

Mar 2021 — Jun 2021

• Instructed a class weekly (~20 students) covering basic Python programming and an introduction to NLP

#### MEMBERSHIP

• Graduates Member (NO.U7669G), Computer Federation (CCF)

Sep 2021 — Present

## SKILLS & ACTIVITIES

- English Proficiency: IELTS (Academic) 7.0 (Overall Score)
- Programming Skills: Python, PyTorch, TensorFlow, JavaScript, HTML/CSS, C
- Tools: MATLAB, Linux Shell, Latex
- Volunteer Work: During the COVID-19 Pandemic (Feb 2021; Provincial Outstanding Volunteer Award)

#### REFERENCES

# • Dr. Fenghuan Li

Assistant Professor, School of Computer Science and Technology, Guangdong University of Technology

URL: https://dblp.org/pid/07/10130.html

E-mail: fhli20180910@gdut.edu.cn

## • Dr. Si Li

Associate Professor, School of Computer Science and Technology, Guangdong University of Technology

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## • Prof. Dongning Liu

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