Danyang Li

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Education

University of Maryland — **College Park, MD**
B.S. in Computer Science | GPA: 3.8/4.0 — *Aug 2024 – May 2027*

Beijing Normal-Hong Kong Baptist University — **Zhuhai, China**
Coursework toward B.S. in Computer Science | GPA: 3.9/4.0 — *Sep 2022 – Jun 2024*

Relevant Coursework
Data Structures, Algorithms, OS, Computer Systems, Database Systems, Linear Algebra, Probability&Statistics, Data Programming

Technical Skills

Languages: Python, Java, C/C++, SQL, JavaScript, R, PHP, HTML/CSS
Databases: MySQL *(familiar: Elasticsearch, Neo4j, MongoDB, Redis)*
Tools/Testing: Linux, Git, Docker, Alibaba Cloud (ECS, OSS), Roboflow *(familiar: AWS, KNIME; pytest, JUnit)*
Libs/Frameworks: NumPy, Pandas, scikit-learn *(familiar: OpenCV, PyTorch, FAISS; React, Node.js)*

Work Experience

Software Engineer Intern — **Guangzhou, China**
Beijing TRS Information Technology — *May 2025 – Jul 2025*

- Generated 31K training samples via LLM-based data augmentation for classical Chinese retrieval; fine-tuned BGE-M3 and BGE-Reranker through a 4-stage hard negative mining pipeline, improving NDCG@10 by 25% with 98% Recall@10
- Built a Python pipeline to scrape 5100+ documents from 2 external sources into structured JSON; implemented field normalization, MD5-based deduplication, and Elasticsearch bulk ingestion for a vertical search system
- Extended an open-source knowledge graph tool with Chinese support and Neo4j integration; processed ~500 articles via DeepSeek API, extracting 934 entities and 2813 relationships into a queryable graph for a digital library application
- Prototyped vector-based image similarity search using CLIP encoder and LLaVA projection weights; tested on 5K COCO images, identified dimension constraints, and evaluated alternatives (OCR+LLM captions) to guide technical decisions

Project Experience

Comic Viewer — **Independent Project**
Full-Stack Developer | React, Node.js, Alibaba Cloud — *Spring 2025*

- Developed a full-stack comic reader with Node.js backend and React + Vite + Tailwind frontend; supports automatic directory scanning and multi-format files
- Implemented session-based authentication and RESTful APIs; deployed on Alibaba Cloud ECS with PM2 and Nginx
- Built responsive UI with keyboard/touch navigation, lazy-loaded thumbnails, and preview panels for cross-device browsing

Image Optimizer — **Data Programming Workshop**
Team Leader | Python {NumPy, Pandas, OpenCV, CustomTkinter} — *Spring 2024*

- Designed image processing pipeline with NumPy and OpenCV to modify pixel-level features (brightness, contrast, saturation) with real-time histogram visualization
- Built dataset expansion tool with Unsplash API; implemented auto-optimization using statistical analysis of pixel distributions
- Led 6-person team to deliver modular CustomTkinter desktop app; managed Git workflow and task distribution

Scholar Data Mining — **Prof. Weifeng Su's Lab**
Team Member | Python {BeautifulSoup, Selenium, Multithreading} — *Summer 2023*

- Developed multithreaded Python parsers with BeautifulSoup and Selenium to collect/update scholar data and publications from academic databases
- Implemented hierarchical exception handling and thread-safe data collection to ensure scraping reliability and fault tolerance
- Designed author deduplication pipeline using string matching and metadata similarity scoring to merge records across sources

Honors & Awards

BNBU First Class Award, 2022-2023 Merit-Based Scholarship — *Dec 2023*

Third-Place Prize, Guangdong C/C++ Programming University Group B, — *Apr 2023*
The 14th Blue Bridge Cup National Software and Information Technology Professional Competition

Leadership & Activities

Operations Assistant — **Zhuhai, China**
BNBU Math Zone — *Mar 2024 – Jun 2024*

- Managed recurring operations (open/close procedures, front-desk reception, basic upkeep) and guided faculty/staff walkthroughs

One-On-One Tutor — **Zhuhai, China**
BNBU Personal Growth and Counseling Center — *Nov 2023 – May 2024*

- Tutored students in Object-Oriented Programming and English for Academic Purposes, guiding assignments and exam reviews with structured feedback and practice recommendations