Zhaodong Kang

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Education

Georgia Institute of Technology | Atlanta, GA *Aug 2021 – May 2024*
Bachelor of Science in Computer Science; *Concentrations: Artificial Intelligence* & *Information Internetworks*
GPA: 4.0/4.0 | **Awards:** Faculty Honor
Relevant Coursework: Design & Analysis Algorithms, Data Structure, Database Systems, Systems & Network, Objects and Design, Object Oriented Programming, Artificial intelligence, Machine Learning, Computer Vision, Perception & Robotics
Engagements: HackGT Hackathon, College of Computing Mentorship Program, Shriners State of Research Summit, GT Trailblazers

Skills

Programming: Python, Java, SQL/MySQL, C, C++, R, JavaScript, CSS/HTML, Git/Github
Tools/Frameworks: Spring Boot, Maven, MyBatis, Linux, Android Studio, React, Jupyter Notebook, Unit Testing

Experiences

Bank of America | Charlotte, NC *Jun 2023 – Aug 2023*
Software Engineer Intern
- Automated Federal Reserve reports generation processes by integrating **Oracle** DB and internal **UI** framework using **Python**, resulting in a 15x efficiency enhancement, and reducing potential user-induced errors with validation checks.
- Designed technical implementation and user interface by synthesizing customer usage pattern investigation, code compatibility with existing codebase, and potential user consultations.

Automated Algorithm Design @ Georgia Tech Research Institute | Atlanta, GA *Jan 2022 – May 2023*
Undergraduate Researcher
- Built the evolutionary image-processing algorithm in **Python** based on convolutional neural network, transfer learning, and genetic programming to automate the diagnosis of 14 different pulmonary diseases on the input of front chest X-ray images.
- Pre-processed 49,466 chest X-ray images and utilized the remote cluster environment to train and test the models.
- Showcased research findings to fellow researchers at the Shriners State of Research Summit through a poster presentation.

College of Computing @ Georgia Tech | Atlanta, GA *August 2022 – Present*
Peer Mentor & Teaching Assistant
- Mentored 50 freshman CS students, providing academic & career development advice through monthly activities, office hours.
- Addressed an audience of 200+ students as a speaker for CS1100: Freshman Leap Seminar while also grading assignments as TA.

Ubicomp Health Lab @ Georgia Tech | Atlanta, GA *Aug 2022 – Dec 2022*
Undergraduate Researcher
- Researched in Human-Computer Interaction area to develop a Diabetic Ulcer Computational Sensing System (DUCSS) in **React Native** for diabetes patients and clinicians to monitor the ulcer developed, instructed by Dr. Rosa Arriaga.
- Conduct comprehensive code reviews and literature reviews with Master's and Ph.D. students in a team of 9 on a weekly basis ensuring timely achievement of project milestones.

Projects

Acronym Search Engine *Jun 2023*
- Led a team of 8 interns, creating an acronym searching engine using **Python**, SQLite, and Streamlit for reducing training costs.
- Designed and created the standardized database covering 30000+ acronyms from various source format for the maintainability.

Cross Road Game *Jan 2023 – May 2023*
- Spearheaded the development of a crossroad game with Android Studio (**Java**) by leading a team of 5 members, implementing **Agile** methodology and Object Orientation Analysis/Design, and utilizing **GitHub** for collaborative efforts.
- Designed and analyzed the domain model, use case diagram, user stories, sequence diagram, design class diagram, etc.
- Ensured program functionality and stability through rigorous testing with Test Driven Development and **Unit Testing**.

Restaurant Supply Express *Aug 2022 – Dec 2022*
- Developed a website application for restaurant owners to manage inventory, orders, and deliveries using **Java** and **React**.
- Designed and Implemented Enhanced Entity Relationship Diagram, physical schema, and SQL views/procedures in a team of 4.
- Contributed to the backend by designing and implementing the **MyBatis**, POJO, and **RESTful API** components of the application.

Facial Emotion Recognition *Aug 2022 – Dec 2022*
- Coordinated a team of 5 to develop machine learning models for facial emotion recognition with **Python** and Jupyter Notebook.
- Implemented Principal Component Analysis (PCA) for preprocess, improving efficiency by 87% while minimizing info loss.
- Improved model accuracy by 24% through fine-tuning the transfer learning of a convolutional neural network ResNet.