Zhaodong Kang

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EDUCATION

Georgia Institute of Technology Atlanta, GA
Bachelor of Science in Computer Science (Intelligence + Systems & Architecture) December 2024
- **GPA:** 4.0/4.0 | **Awards:** Faculty Honors
- **Clubs/Organizations:** College of Computing Peer Mentor, Chinese Student Scholar Association

SKILLS & COURSES

Technical Skills: JAVA; Python; SQL/MySQL; C; JavaScript; CSS/HTML; MATLAB;
Tools/Frameworks: Maven, MyBatis, React Native; VS Code; IntelliJ IDEA; PyCharm; Jupyter notebook; Git/Github; LaTeX
Relevant Courses: Machine Learning; Computer Vision; Database Systems; Systems & Network; Data Structure & Algo; OOP
Certificates: Introduction to Programming with MATLAB; Problem solving using computational thinking
Language Skills: Native speaker in Chinese; Proficiency in English

PROJECTS

Hybrid Images – Computer Vision Atlanta, GA
Individual Course Related Project August 2022 – September 2022
- Created the hybrid images (static images that change in interpretation as a function of the viewing distance) with NumPy, PyTorch
- Implemented the functions to create Gaussian Kernels, convolution algorithms, and compared the effects of various image filters
- Using gaussian filter and Fourier transform to extract the high frequencies or low frequencies of images
- Investigated and compared the convolution in the spatial domain and transformation in the frequency domain, and De-blurred images with known kernel in the frequency domain according to the Convolution Theorem

HackGT8 - Covid War Atlanta, GA
Team Leader (Hackathon Project) October 2021
- Led a team of 4 to create a fun and educational game related to the prevailing covid pandemic, where users could choose various modes and control the mascot to avoid the collision with the virus; after collision it jumped to corresponding explanation pages
- Utilized java.awt, javax.swing to paint elegant GUIs and implemented jumping between multiple user interfaces
- Optimized the screen lag problem using threads and solved multiple pop-up window problems by killing certain threads
- Rationalized the division of labor and actively resolved problems to successfully deliver the project within the hackathon timeline

EXPERIENCES/RESEARCH

Ubicomp Health Lab Georgia Tech Atlanta, GA
Undergraduate Researcher August 2022 – Present
- Conducted research with Dr. Rosa Arriaga about Human-Computer Interaction in Ubicomp Health Lab, focusing on building the Diabetic Ulcer Computational Sensing System for diabetes patients and clinicians that is usable and useful
- Working with a group of 9 on designing and developing the system with React Native, reviewing related literatures, and participating weekly meetings

Automatic Algorithm Design Atlanta, GA
Team Member January 2022 – Present
- Led a group of 4 to achieve the co-dominant solutions and find the Pareto front using ML models, Multi-Objective Genetic Programing, and EMADE (Evolutionary Multi-objective Algorithm Design Engine) on predicting the survival on Titanic, with the Accuracy Score of 86.59% and True Positive Rate 88.03%
- Worked with image processing group, preprocessing, augmenting, and splitting 49,466 chest X-ray images for training/testing.
- Used PACE (Partnership for an Advanced Computing Environment) to train, test, and evaluate the evolutionary model

TestDaily (Educational Company) Remote
Teaching Assistant June 2022 – July 2022
- Assisted in teaching Data Structure for incoming college students, covering Java Basics, LinkedList, BST, Heap, AVL, Hashtable
- Held weekly two-hour-long recitation for students to reinforce contents and be graded 5 out of 5 by students at the end of the course
- Answered students' questions and helped them in debugging and coding to improve their programming skills

ACTIVITIES & LEADERSHIP

Math R&D/Competition Club Beijing, China
Co-Founder & Co-President December 2018 – June 2021
- Led a group of 13 students to compile, edit and issue 2 math textbooks in bilingual versions with Math in national graduation exam, Pre-AP Calculus, and SAT Math subject exam, attracting all of 10th grader to use them as supplemental materials
- Held intensive training sessions with advanced mathematical knowledge to prepare High School Mathematical Contest in Modeling (HiMCM), led one team to achieve Honorable Mention in 2019, and led three teams to participate in the 2020 HiMCM