Matthew W. Xie

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Availability: January – August 2022

EDUCATION

Northeastern University, Boston, MA | **GPA**: 3.7/4.0 *September 2020 – Present*
Khoury College of Computer Sciences | Honors Program *Expected May 2024*
- Candidate for Bachelor of Science in Computer Science

Honors: Northeastern Honors Scholarship, Dean's List at Khoury College
Relevant Coursework: Algorithms and Data, Object-Oriented Design, Principles of Information Science, Data Structures

TECHNICAL KNOWLEDGE

Languages: *Proficient:* Java | *Familiar with:* HTML, CSS, SQL, Python, Racket, C, R
Operating Systems: Windows, MacOS, Linux (Ubuntu)
Technologies: Git, Java Swing, IntelliJ, Visual Studio Code, Eclipse, R Studio, Adobe Creative Cloud (Photoshop, Illustrator, After Effects)

WORK EXPERIENCE

Software Engineer Intern (Amlogic) | Santa Clara, CA *July – August 2021*
- Converted an Excel sheet to a C header file using a Python Script and a .db file to an excel file with a SQL script for digital TV SoC (System-on-Chip) performance testing
- Evaluated terrestrial and cable demodulator performance of newly developed company TVs by conducting field tests around the Midwest

Research Intern (D.J. Angus Physics at IUPUI) | Indianapolis, IN *June – August 2019*
- Researched the characterization of antiferromagnetic thin films for their application in spintronic technologies
- Presented the findings to the physics professors and researchers in the Department of Biomedical Engineering

Research Intern (Project STEM at IUPUI) | Indianapolis, IN *June – August 2018*
- Created an estimation model to help predict the infrared reflectivity of roadside objects caught by car sensors
- Presented the research conclusions at the end of program symposium

Research Intern (Young Innovators Quest by Purdue University) | Indianapolis, IN *June – July 2017*
- Researched and presented a modern roadway intersection design that is far more efficient and effective than the standard 4-way intersection

PROJECTS - *All code available upon request*

Personal Website | HTML, CSS *November 2021*
- Built a personal website that introduces myself, links my resume and contact info, and lists my projects
- Visually showcased the functionality of all the projects mentioned below

Image Processing Software | Java *June 2021*
- Collaboratively created an image processing software that allowed users to upload images onto layers and apply color transformations (sepia, greyscale) and filtering (blur, sharpen)
- Enabled all image or image layers to be uploaded or saved as various file types (jpg, png, ppm)
- Designed an elegant user interface to support the above functionality along with other special features, including setting the visibility of layers, downsizing and applying mosaic effects to images, and logging all user action

FreeCell | Java *May – June 2021*
- Recreated a FreeCell game structured through the use of an MVC design
- Enabled users to interactively input commands to move cards between open, foundation, and cascade piles

Maze | Java *April 2021*
- Built a program that generated unique mazes using Kruskal's Algorithm
- Enabled users to either solve the mazes interactively, or visually see the solution via a BFS/DFS animation

ADDITIONAL INFORMATION

Interests: Photography, Esports, Running, Filmmaking, UI/UX Design, Tennis, Web Development
Standardized Tests: ACT: 34 (99th Percentile) | SAT: 1530 (99th Percentile)