

# Jay Thomas Blankenship

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## OBJECTIVE

An eager, well rounded software developer who's focuses are in full stack development, graphical programing, database integrated applications, model free learning, networked applications and an extensive understanding of all data structures. I strive to build the most creative as well as efficient software solutions, by making precise properly annotated functions and software system structures. Seeking a challenging and rewarding position within the software industry, I am eager to call myself a Software Developer who is part of a development team.

## EDUCATION

**University of Illinois at Chicago**

Bachelor of Science in Computer Science

Major: Computer Science

December 2021

## TECHNICAL KNOWLEDGE

**Languages** - C++, C, C#, SQL, Java, JavaScript, Kotlin, JSP, PHP, WebGL/OpenGL, HTML, Python, XML, CSS, F#, Perl

**Applications** - Visual Studio 2015/2017/2019/2022, Unreal Engine, Visual Studio Code, IntelliJ, MySQL Workbench, Postman, JIRA, Android Studio, NetBeans, Eclipse, Microsoft Office, MATLAB, Arduino IDE, Postman, Wireshark, Bash, putty, winSCP

**Proficiencies** - Android Development, Client Server Applications, Desktop Applications, GitHub, Perforce, Source Tree, UI Development, Spring Framework, Java Web Development, Networking, Multithreaded Applications, Object Oriented Programming, Web Applications

## WORK EXPERIENCE

**Centuria Government Contractor for National Oceanic and Atmospheric Administration, National Data Buoy Center, U.S. Department of Commerce, U.S. Department of Defense, U.S. National Weather Service and Defense Advanced Research Projects Agency at John C Stennis Space Center , Mission Control** - Hancock County, Mississippi- Scientific Applications Programmer/Database Administrator - security clearance

2022 - Present

- Maintaining systems , Updating network features (i.e. fpt->https) and replacing depreciated libraries with new ones or building the company new class objects to be used in production.
- Building new classes/objects to replace existing code, mostly in a live deployed environment with little room for error, building test environments as well.
- Ensuring security , looking for possible sql injection and fixing it with prepared statements or other security risks such as DoS attacks making sure our network timeouts are set respectively with checks, also developing an application architecture impervious to cross site scripting, constantly adding more cyber security tools and methodologies every project we work on.
- Finding error's causes and fixing found errors often on live running projects, usually with very little description of the issue or a very niche issue, , sometimes one change fixes many tickets as the client can confusingly report single issue multiple times and multiple ways, making sure the team is properly using and updating source control before production so we can use it as a living code history book of our projects, also good to keep the edits near there implementation time therefore errors that pop up are more reasonably found and connected to said commit , this means peer reviews are taking into priority in terms of completing them soft skills are used to verify clients intentions and programmers work

**Walmart** - Crystal Lake, IL - *Automotive Technician, Electronics Associate, Stockworker*

2015 - 2023

## PERSONAL PROJECTS & COLLEGE PROJECTS / CLASSES

**Full Stack Personal Project** - *VisualStudio, Unreal Engine, SQL, Kotlin, C++, C#*

- Independently researching and learning how to make unreal engine desktop networked applications
- Communication between a Kotlin api, C++ front end and an SQL database pipeline
- [https://youtu.be/KFLK5z65\\_UE](https://youtu.be/KFLK5z65_UE)

**Snake Game Personal Project** - *VisualStudio, Unreal Engine, C++, C#*

- Client Server networking enabled and replication is accurate
- Custom classes in addition to efficient use of data structures for position tracking
- <https://youtu.be/YPLpnkaVnYc> , [https://youtu.be/rl\\_8PbJGIV4](https://youtu.be/rl_8PbJGIV4)

**Artificial Intelligence** - *Python*

- Multiple projects with model free learning as well as a concentration on q learning and markov decision problems

**Computer Graphics** - *Webgl*

- Multiple projects including texture rendering as well as lighting phong (Fragment Shader) and Gouraud (Vertex Shader) as well as HTML functionalities including camera movement and movement hierarchy

**Mobile Development Projects** - *Android Studio, java, xml, utilizing android operating system in applications*

- MultiThreaded Application, extending Adapters, Multiple user interface projects, background / foreground operations such as a music player, Calls to data outside of the application, GridLayout, ListView, Fragment Dynamic Layout, Recycler View
- <https://youtu.be/tVhGKrNwsOE>

**Arduino Projects** - *C, Arduino IDE*

- <https://youtu.be/dru9aRT1ymE>, <https://youtu.be/tBVrF4xesHs>, <https://youtu.be/aEhLb6oM6Yw>, <https://youtu.be/-qtSMZYF1bI>, <https://youtu.be/-CaYCynKQqU>, <https://youtu.be/z3veZUWCGD0>

**Computer Design, Data Structures, Computer Networking** - *C++, C, Python*

- Binary trees (AVL Tree), graphs, hash tables, garbage collectors, page files, Bellman Ford's, Dijkstra's, networked programs handling lag and latency with acknowledgement messages validating delivery

**Java Projects, and Desktop** - *Eclipse, Java*

- Using Java and css in order to make gambling games that were multithreaded as well as client server networked

**Calculus College Project** - *VisualStudio, Unreal Engine, C++, C#*

- In unreal engine with C++ I made a simulation for a calculus project with the mathematical function accurately represented on the user interface

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