# Jacob Ford

918-740-9974 | jford.null@gmail.com | jacobford.dev | github.com/jfordnull

## EDUCATION

**University of Missouri Kansas-City** <span style="float:right">Kansas City, MO</span>
*Bachelor of Science in Computer Science, Minor in Mathematics* <span style="float:right">Aug. 2020 – Dec. 2024</span>

## EXPERIENCE

**AR/VR Project Volunteer** <span style="float:right">Sept. 2024 – Present</span>
*UMKC AR/VR Lab* <span style="float:right">Kansas City, MO</span>
- Contributing to open-source AR/VR games and applications using Unity and C#
- Migrating AR/VR experiences to web using WebGL, ThreeJS, and Javascript
- Collaborating with a team using Git
- Developing shaders in HLSL and GLSL for advanced visual effects

**Woodworking Specialist** <span style="float:right">May 2023 – Aug. 2023</span>
*GrooveWasher LLC* <span style="float:right">Kansas City, MO</span>
- Worked autonomously, establishing goals, priorities, and production timelines
- Solved complex woodworking and fabrication problems

**UMKC Chemistry Tutor** <span style="float:right">Aug 2022 – Dec. 2022</span>
*UMKC (PASS Leader)* <span style="float:right">Kansas City, MO</span>
- Simplified complex concepts in chemistry for diverse group of students
- Collaborated with students to identify knowledge gaps and provide individualized support
- Developed structured lesson plans and learning strategies

## PROJECTS

**Arduino Rasterizer** | *C, Git*
- Developed a memory-efficient 3D graphics engine in embedded C
- Applied concepts from linear algebra and operating systems

**Fibonacci Heap** | *Java, Git*
- Implemented Fibonacci Heap data structure to optimize performance of pathfinding algorithms on dense networks for AI and data science
- Reduced time-complexity of Dijkstra's and Prim's algorithms to theoretical optimum
- Learned advanced algorithm analysis, including amortized cost function

**Portfolio Website** | *HTML, CSS, Javascript, ThreeJS, Git, Node.js*
- Developed a creative engineering portfolio using modern tech stack

**Project Space** | *Unity, C#, AR/VR, Git*
- Collaborated with a team to develop a physics-based spaceflight simulator in VR
- Honorable Mention in UMKC Fall 2022 Hackathon

## LEADERSHIP

**UMKC Robotics** | *Vice President* <span style="float:right">May 2024 – Present</span>
- Helped to revitalize organization after long hiatus

**UMKC CS Club** | *Vice President* <span style="float:right">May 2024 – Present</span>
- Leading workshops in Git and CLIs

## TECHNICAL SKILLS

**Languages**: C/C++, Java, Python, C#, SQL (Postgres), Javascript
**Frameworks**: Node.js, ThreeJS
**Developer Tools**: Git, VS Code, Docker, Unity, Blender, Vite
**Misc**: Linux, SSH, BASH, Microcontrollers, NumPy, MATLAB