

CURTIS STUTSMAN

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EDUCATION

University of Illinois Urbana-Champaign

Expected Graduation: May 2025

Major: Computer Engineering

GPA 3.96

- Honors: James Scholar, Tau Beta Pi Honor Society, Eta Kappa Nu Honor Society, Dean's List
- Activities: Zeta Beta Tau Fraternity, ACM School Chapter

SKILLS

Programming Languages: C++, Python, JavaScript, SQL, C, C#, SystemVerilog

Frameworks & Libraries: STL, React, Node.js, Material UI, Pandas, NumPy, Pytorch, Gtest, Pytest

Tools & Technologies: Git, Jenkins, Docker, Kubernetes, SQL Server, Postgres, AWS, GCP, STM32, Jira

Experience in: Object Oriented Design, REST API Development, Agile, Embedded Systems, Operating Systems, Multithreaded Programming, Relational Database, Distributed Systems, Computer Architecture, AI, Linux & Windows

PROFESSIONAL EXPERIENCE

Motorola Solutions

Chicago, IL

C++ Software Engineering Intern

May - August 2024

- Created a new feature for land mobile radio stations that detected discrepancies between time reference sources with nanosecond precision ensuring near 100% synchronization reliability
- Upgraded reporting structures to connect product user with critical system information regarding NTP servers
- Collaborated with cross-functional teams to test mission-critical equipment using in-lab hardware and software simulations for improved reliability and performance

Rivian Automotive, LLC

Champaign, IL

Special Projects Intern (Software)

September 2023- May 2024

- Implemented regression testing to maximize ease of use and increase efficiency for hardware verification teams
- Automated key tool-flow processes with Python scripts on AWS, enabling consistent data extraction, parsing, and storage for real-time analytics.
- Developed an API extraction layer for saving, querying, and displaying of data gathered from tool runs

NISA Investment Advisors, LLC

St. Louis, MO

Software Development Intern

June - August 2023

- Built and maintained 5+ web apps using React and ASP.NET, reducing daily operational tasks for internal teams
- Created and expanded RESTful APIs for secure data exchange between company applications and internal databases, improving data integrity and scalability

PERSONAL PROJECTS

System-on-Chip Video Game

November - December 2023

- Developed a retro racing game on a Spartan-7 FPGA using SystemVerilog and C, showcasing expertise in hardware-software co-design
- Integrated a custom CPU, I/O peripherals, memory management, and GPU logic to simulate real-time graphics

Embedded Spotify Remote

September- December 2024

- Engineered an embedded system with WiFi connectivity using an STM32 MCU that allowed user control of Spotify playback and displayed album art on an LED matrix (complete with custom PCB)

RESEARCH

University of Illinois

Champaign, IL

Undergraduate Senior Research

August 2024 - Present

- Developing a novel diffusion model for the Influence Maximization problem of social networks that better reflects real world scenarios to further optimize the spread of influence and ideas in human populations
- Utilizing High Performance Computing Clusters to run tens of thousands of simulations on real world datasets
- Co-Authoring a thesis documenting research findings and proposing advancements in the field