

Anish Thiriveedhi

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EDUCATION

University of Illinois Urbana-Champaign

Bachelor of Science in Computer Science and Linguistics; **GPA: 3.8/4.0**

May 2025

Champaign, IL

- **Relevant coursework:** Data Structures, Algorithms, Software Design, Computer Systems, Discrete Structures, Applied Machine Learning, Linear Algebra, Distributed Systems

SKILLS

- **Languages:** C, C++, C#, Java, Python, JavaScript, Dart, SQL, LaTeX, HTML/CSS
- **Frameworks & Libraries:** React JS, Flutter, Flask, TensorFlow, Scikit-learn, Pandas, Django, Streamlit, Bootstrap
- **Developer Tools & Technologies:** Firebase, Git, Docker, Unreal Engine, Heroku, Virtual Machines, Jupyter Notebook

WORK EXPERIENCE

Brunswick Corporation

Software Engineer Intern

May 2023 – August 2023

Champaign, IL

- Built an augmented reality (AR) boating simulation to showcase the future of marine recreation at the 2024 Consumer Electronics Show
- Implemented an interactive AR boat tour for the simulation, by developing C++ scripts and blueprints in Unreal Engine 5
- Increased users' engagement from 40% to 85% by developing a fishing experience using a custom programmed controller made with an Arduino
- **Tech Stack:** C++, Unreal Engine 5, Blender, Arduino

Smart MS3

Research and Development Software Engineer Intern

June 2020 – August 2020

Robbinsville, NJ

- Developed an app with Flutter and Firebase that collected real-time electromyography (EMG) data from a custom device, enabling patients to monitor muscle fatigue and recover efficiently
- Enhanced patients' exercise proficiency from 32% to 74% by implementing personalized exercise recommendations based on their EMG data stored in Cloud Firestore
- Raised patient engagement from 15% to 75% by incorporating informative features such as data visualizations of muscle recovery progress throughout their treatment
- **Tech Stack:** Flutter, Dart, Java, Firebase, Authentication, Cloud Firestore, Cloud Storage, Arduino BLE hardware

ACTIVITIES

Quant

Quantitative Developer

September 2022 – Present

Champaign, IL

- Architected and implemented the frontend for the Quant organization, encompassing the main website and internal member services
- Collaborated with a team to develop a high-frequency trading system, divided into three parts: Order Matching Engine (OME), Gateway, and Tickerplant, utilizing NASDAQ specifications
- Ensured the robustness of the OME code with behavior-driven testing and unit testing using the C++ Catch2 Testing Framework, enhancing the reliability of the trading system
- **Tech Stack:** C++, Docker, Vagrant, Catch2, React JS

Illinois Design Challenge

Infrastructure Staff

September 2022 – Present

Champaign, IL

- Partnered with a team of 4 to develop and maintain content for an event website and API, ensuring seamless coordination and delivery
- Communicated with other staff and team leads to plan and organize the Midwest's Premier Engineering and Product Design Challenge, which hosted over 100 participants
- **Tech Stack:** React JS, Tailwind CSS, C#, .NET, HTML, CSS, cPanel

Neurotech@UIUC

Software Developer

September 2021 – May 2023

Champaign, IL

- Constructed a virtual reality (VR) environment paired with an EEG device to control actions in VR using facial movements
- Trained single-layer neural network to identify facial movements using brainwave data and various ensemble methods in Python, reaching 97% accuracy through continued trials
- **Tech Stack:** Python, Unreal Engine, Scikit-learn, SciPy, Pandas, NumPy, Raspberry Pi

PROJECTS

Microservice-based Mosaic Generator / [GitHub](#)

- Developed 13 microservice mosaic generators in C as part of a large-scale system, generating unique "tile images" for complex mosaics
- Implemented an efficient mosaic algorithm utilizing pre-calculated average tile colors and kd-trees for rapid best-match tile identification, maximizing the aesthetic accuracy of the final mosaic
- Devised a mosaic reducer algorithm to optimize tile selection by analyzing over 1,989 individual mosaics, enhancing image representation quality by 85%
- Contributed to the design and extension of a shared middleware, facilitating the integration of all student-developed microservices; further collaborated on its evolution through feedback and debugging
- **Tech Stack:** C, Microservices Architecture, Middleware Design, KD-Trees, JSON, HTTP requests

MyHousing / [GitHub](#)

- Collaborated with a team of 3 and created a full-stack app that enabled users to rate and share real-time experiences with local realty companies
- Integrated an interactive map that displayed over 100 housing options based on pricing and location data, streamlining the user's search process and reducing search time by 70%
- **Tech Stack:** React JS, Tailwind CSS, Django REST framework, PostgreSQL, React Google Maps API