

Anish Thiriveedhi

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EDUCATION

University of Illinois Urbana-Champaign

May 2025

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

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, SciPy, NumPy, Django, Streamlit, Bootstrap
- **Developer Tools & Technologies:** Firebase, Git, Docker, Unreal Engine, Heroku, Virtual Machines, Jupyter Notebook

WORK EXPERIENCE

Brunswick Corporation

May 2023 – August 2023

Software Engineer Intern

Champaign, IL

- Built an **augmented reality** (AR) boating simulation using **C++** and **Unreal Engine 5**, which will be featured at the 2024 Consumer Electronics Show, highlighting the future of marine recreation
- Crafted an interactive AR boat tour by integrating C++ scripts and blueprints in Unreal Engine 5, offering an immersive user experience
- Elevated user engagement from **40% to 85%** by crafting a fishing experience with a custom Arduino-based controller, and utilizing a network of interactive triggers in Unreal Engine

Smart MS3

June 2020 – August 2020

Research and Development Software Engineer Intern

Robbinsville, NJ

- Developed an app utilizing **Flutter** and **Firebase** to collect real-time **electromyography** (EMG) data from an **Arduino**-based device, empowering patients to closely track muscle fatigue and optimize recovery
- Boosted patients' exercise proficiency from **32% to 74%** by harnessing stored EMG data and crafting personalized exercise recommendations using **Random Forest** algorithms
- Amplified patient engagement from **15% to 75%** by introducing data visualization features that showcased muscle recovery progress through the **Seaborn** and **Matplotlib** Python libraries
- Enhanced user trust and experience by integrating **Firebase Authentication** for secure user access and **Cloud Firestore** for reliable and seamless data management

CAMPUS INVOLVEMENT

Quant

September 2022 – Present

Software Engineer

Champaign, IL

- Architected and implemented the frontend of the Quant organization using **React JS**, encompassing both the main website and comprehensive internal member services
- Collaborated with a team to engineer a **high-frequency trading** (HFT) system compliant with NASDAQ specifications, primarily utilizing **C++** and **Docker**
- Adopted **Vagrant** for consistent and replicable development environments, promoting seamless collaboration and deployment

Illinois Design Challenge

September 2022 – Present

Infrastructure Staff

Champaign, IL

- Partnered with a team of 4 to design and maintain an event website and API primarily using **React JS**, **C#**, and **.NET**, ensuring smooth content 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**

Neurotech@UIUC

September 2021 – May 2023

Software Developer

Champaign, IL

- Constructed a virtual reality (VR) environment in **Unreal Engine**, integrated with an **EEG** device for users to control VR actions through facial movements
- Trained and developed a single-layer neural network using **Python**, with **TensorFlow** and other libraries, to accurately discern facial movements from brainwave data, achieving a **97%** accuracy through iterative trials

PROJECTS

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

- Developed 13 **microservice** mosaic generators in **Python** and **Flask** as part of a large course-wide system, creating over 1989 mosaics from over 300,000 "base images" to reduce into one ultimate mosaic
- 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 mosaics by **85%**
- Collaborated on a **shared middleware** to streamline the integration of all student-developed microservices, ensuring smooth **HTTP request** handling and a unified microservices architecture

MyHousing | [GitHub](#)

- Cooperated with a team of 3 and created a full-stack app using **React JS**, **Django**, and **PostgreSQL** to simplify the apartment search for students, enabling real-time sharing of experiences and comparison of local housing options
- Integrated an interactive map, with the **Google Maps API**, that displayed over **100 housing options** based on pricing and location data, streamlining the user's search process
- Designed a **Django REST framework** backend to manage HTTP requests, user authentication, and registration