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, .NET, Bootstrap
- Developer Tools & Technologies: Firebase, Git, Docker, Unreal Engine, Heroku, Virtual Machines, Vagrant

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 (UE), highlighting the future of marine recreation

Elevated user engagement from 40% to 85% by creating a fishing experience with an Arduino controller and interactive triggers in UE

• Employed **TCP** communication between various computers, enabling users to make seamless selections that triggers dynamic changes within the AR simulation

Smart MS3 June 2020 – August 2020

Research and Development Software Engineer Intern

Robbinsville, NJ

- Developed an app utilizing Flutter and Firebase to collect and analyze electromyography (EMG) data from an Arduino-based device, empowering patients to closely track muscle fatigue and optimize recovery
- Boosted patients' exercise proficiency by 65% using the **Random Forest** algorithm with EMG data to tailor exercise recommendations
- Amplified patient engagement by 70% with data visualizations of muscle recovery progress via the Seaborn and Matplotlib 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

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

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 teams to organize the Midwest's Premier Engineering 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 **1,989** mosaics from over 300,000 "base images" to reduce into one ultimate mosaic
- Implemented a kd-trees based algorithm for rapid best-match mosaic tile identification, maximizing the accuracy of the mosaics by 85%
- Collaborated on a shared middleware to integrate all students' microservices, ensuring smooth HTTP handling and a unified 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