Sujay Patel

704-747-6844 | suj@unc.edu | $\underline{\text{LinkedIn}}$ | $\underline{\text{Github}}$ | $\underline{\text{Portfolio}}$

EDUCATION

University of North Carolina at Chapel Hill

Chapel Hill, NC

Computer Science B.S., Biomedical Engineering B.S.

Aug. 2022 - May 2026

• GPA: 3.97/4.00

• Relevant Coursework: Data Structures and Analysis (**Java**), Discrete Structures, Scientific Programming (**Python**), Foundations of Programming (**Java**), Systems Fundamentals (**C**), Calculus 3, Differential Equations

Projects

Deals For You | Spring Boot, TensorFlow, React.js, PostgreSQL, Webscraping

Website | Source Code

- Built a full stack clothing website with over 100+ users using Spring Boot and React that displays the latest deals and promos for popular brands and developed user security using JWT Tokens and Spring Security.
- Hosted a **TensorFlow** ML model using **Flask** that classifies clothing images to over **90**% accuracy and recommends them to the user based on ratings and previous purchases.
- Webscraped using **BeautifulSoups** and **Selenium** and stored product data in a **PostgreSQL** database.

NBA Premier Stats | Spring Boot, Scikit-Learn, PostgreSQL, React.js, Webscraping, APIs Website | Source Code

- Successfully created a full stack application using **Spring Boot** and **React** that displays historic NBA rankings from the last 10 years, and predictions about future player stats using a **Scikit-Learn** Random Forest Regressor.
- Utilized Beautiful Soup and Jupyter Notebooks to webscrape the NBA.com site to obtain data of over 400 NBA players and imported data into a PostgreSQL database.
- Connected an ESPN API to display new NBA related news from a variety of sources with filtering options.

Housing Prices Predictor | Scikit-learn, Django, React.js, HTML/CSS

Source Code

- Created a full-stack Scikit-Learn model that predicts housing prices from Zillow data from over 100 regions.
- Utilized a Random Forest Regressor model that predicts prices withing 95% accuracy.

EXPERIENCE

Software Engineering Fellow

July 2024 - Present

HeadStarter AI

Remote

- Developing 10+ projects and competing in hackathons with goal to develop an application with 1000+ users.
- Leveraged **PyTorch** and **TensorFlow** to provide AI algorithmic analysis to web applications and provide personalized layouts and analysis for users.
- Utilize technologies such as TypeScript, Angular, and Node.js for full stack development of web applications.

Research Assistant

Jan 2024 – Present

UNC Department of Physical Sciences

Chapel Hill, NC

- Utilized **Python** and **C++** to successfully develop a full-fledged particle simulation and integrated libraries such as Matplotlib, Pandas, and Numpy for post-analysis and further research.
- ullet Successfully tracked particle movements to within 5% accuracy of real-time analysis through class assignments.

Undergraduate Teaching Assistant

January 2024 – May 2024

UNC Department of Physics and Astronomy

Chapel Hill, NC

- Lead physics lab sessions with over 50 undergraduate students to explain physics concepts and equipment use.
- Increased student scores on lab reports in my lab section by 10 percent compared to other lab sections.

LEADERSHIP AND CLUB ACTIVITIES

Coding Leader

Jan 2024 – Present

Biomedical Devices Club

Chapel Hill, NC

- Taught basic programming in Python, and libraries such as numpy and matplotlib to over 40 club members.
- Led meetings to teach C++ in the Arduino IDE for creating circuits and basic electrical devices.

TECHNICAL SKILLS

Languages: Java, Python, C++, C, SQL, JavaScript, TypeScript, HTML/CSS, Swift

Frameworks and Libraries: AWS, React, Node.js, Angular, Django, Bootstrap, NumPy, Matplotlib, pandas

Developer Tools: Git, Docker, XCode, VS Code, IntelliJ