

# Akunna Onyekachi

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## SUMMARY

Visionary full-stack developer with a passion for integrating GIS and data science into mobile and web applications in cloud and database environments. Eager to leverage expertise to drive innovative solutions for organizations, especially in developing and assisting in projects and apps aimed at improving the mental well-being of individuals. Proven track record of delivering value through the strategic implementation of advanced technologies. Committed to continuous learning and making a meaningful contribution to the tech landscape.

## CAREER GOALS

Dedicated to exploring new avenues in GIS, data science, and full-stack app development primarily using Python, R, JavaScript tools, React Native, and Swift. Keen on roles that offer opportunities to:

- Contribute to the development and maintenance of high-performance GIS software development solutions
- Utilize current and emerging data science technologies to drive innovation, creativity, and efficiency
- Create, design, and enhance functional and interactive mobile, web applications, and websites

## TECHNICAL SKILLS

- Back-End Development:** Django, Express.js, FastAPI, Flask, and Node.js
- Cloud Computing Platforms:** Amazon S3 and Google Cloud Storage
- Databases:** Firebase, MongoDB, MySQL, and PostgreSQL
- Data Science:** MATLAB, R, and Python
- Front-End Development:** Bootstrap, HTML, React.js, Tailwind CSS, and TypeScript
- GIS:** ArcGIS, GEE, Leaflet.js, Mapbox, OpenLayers.js, and QGIS
- Mobile App Development:** React Native, Swift and SwiftUI

## WORK EXPERIENCE

**Software Developer and Data Scientist**, Akunna Tech Studio, Chapel Hill, NC Aug 2023 - Present

- Created cloud environments and developed full-stack web and mobile applications, including SaaS solutions, with a focus on faith-tech apps to expand my network and foster collaboration for future improvements
- Pioneered independent data science projects, including data mining, machine learning, and web scraping, enhancing the functionality of web and mobile app projects
- Engineered dynamic and interactive visualizations to highlight complex patterns and trends, enabling impactful data storytelling

Provided freelance web development services to various clients, including The Kenya Bankers' (a financial institution based in Nairobi, Kenya) banking app, as well as colleagues and friends, and offered tutoring services

**GIS Developer**, DataWorks NC, Durham, NC Apr 2024 – July 2024

- Analyzed assessment and taxation issues in high-value commercial properties, identifying over \$50 million in potential uncollected tax revenue, with a focus on uncovering unusually high property taxes in neighborhoods
- Contributed to the development and improvement of the demographic mapping web application, utilizing Mapbox.js, Vue.js, Node.js, and other JavaScript frameworks and libraries to visualize geospatial data from PostGIS and other sources, helping to better understand the census and demographic makeup of these regions
- Automated data collection and processing by writing R scripts to input census, real estate, property tax, and eviction case records, among other data, as metric data for the interactive web application for the residents of Durham, North Carolina

**Geospatial Data Engineer Intern**, Durham Public Schools, Durham, NC May - Aug 2023

- Demonstrated expertise in using GIS tools like ArcGIS and Python's ArcPy for data acquisition, population density trend analysis, and map creation, with a focus on predicting future student growth patterns to support resource allocation and address student overcrowding
- Designed and implemented complex geospatial data development projects and technology initiatives, including Orthoimagery, AddressNC, Seamless Parcels, and geospatial OpenData efforts like NC OneMap
- Developed R scripts to interact with external data sources, extracting parcel and location coordinate files for automated updates, saving approximately 5 hours of manual effort each week
- (Codes available on GitHub, including additional GIS projects)

## SOFTWARE PROJECTS

**Akunna Writes Blog Web App** (Built with: Firebase, Vite.js, React.js, Firestore, and Tailwind CSS)

- Developed and deployed an app for posting short stories and translations in various languages, enabling users to log in, view, and contribute
- Purpose: To foster a multicultural community by providing a platform for diverse voices to share narratives and translations, as well as to post short stories for personal inspiration during tough times

**Faithify Mobile App** (Built with: Expo Go, React Native, JSON, TypeScript, Firebase, and Firestore)

- Created an iOS and Android compatible Christian based mobile platform for theme-based scripture verses and an interactive quiz to strengthen memorization skills
- Purpose: To inspire users to deepen their faith through engaging content and personalized learning experiences, making scripture memorization enjoyable

**Google Maps Replica** (Built with: Mapbox, JavaScript, HTML, and CSS)

- Developed an interactive map that gets current location and estimates travel time between points with various transportation modes
- Purpose: To offer an intuitive navigation tool that simplifies travel planning, helps users find the quickest routes, and provides an opportunity to become comfortable integrating GIS into web and mobile applications

**Job Application Platform with ATS** (Built with: HTML, Tailwind CSS, Bootstrap, JavaScript, Node.js, Express.js, Google Cloud Storage, and Python)

- Leveraged data mining insights to develop a mobile-responsive job application web platform with a complementary applicant tracking system
- Purpose: To streamline hiring by automating applicant evaluation, improve candidate selection efficiency, and create an extremely selective ATS that identifies the top 10% of applicants based not only on resume scans but also on the data input in their forms and the quality of their cover letters

**Nexus Social Media App** (Built with: MongoDB, Mongoose, Node.js, Express.js, React.js, Tailwind CSS, and Vite.js)

- Engineered a mobile responsive therapy alternative social media platform for anonymous sharing of self-help resources and tools
- Purpose: To serve as a free therapy alternative app, creating a safe space for users to explore mental health resources and support, fostering a community of healing and shared experiences, while also gaining experience in designing web applications with left bars, right bars, and the central content section

(Additional information, links, and projects available on [Portfolio](#) and [GitHub](#))

## EDUCATION

**The University of North Carolina at Chapel Hill, NC** Aug 2019 - Dec 2023

- Majors:** M.S. in Information Science (Web/Mobile App Development and Data Science Focused) and B.S. in Environmental Science (Geographic Information Systems Focused)
- Coursework:** UX/UI, Software Development Life Cycle, APIs, CI/CD, SQL/NOSQL Databases, Scalability, Information Retrieval, Data Mining, Cloud Computing, Remote Sensing and Spatial Analysis, and Geospatial Data Analysis