

Akunna Onyekachi

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[Portfolio](#) • [GitHub](#) • [LinkedIn](#)

SUMMARY

Visionary Geospatial Developer with 3 years of experience, passionate about integrating GIS and data science into web and mobile apps within cloud and database environments. Focused on creating modern solutions for education, community building, and enhancing mental well-being. Dedicated to leveraging advanced technologies for meaningful impact and innovation.

CAREER GOALS

Dedicated to exploring new avenues in GIS, data science, and full-stack app development primarily using ESRI's ArcGIS, Python, R, JavaScript frameworks and libraries, React Native, and Leaflet. Keen on roles that offer opportunities to:

- Contribute to high-performance GIS applications supporting spatial analysis, urban planning, and demographic analysis
- Create, design, and enhance functional, user-friendly, and interactive mobile and web applications

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, SQL/NOSQL Databases, Web Optimization, Scalability, Information Retrieval, Data Mining, Cloud Computing, Remote Sensing and Spatial Analysis, Geospatial Data Analysis, CI/CD

TECHNICAL SKILLS

- App Development & Styling:** Drizzle ORM, Flask, Next.js, React.js, React Native, Node.js, ShadCN, Swift, Tailwind CSS, TypeScript
- Cloud & Databases:** Firebase, Google Cloud, MongoDB, MySQL, PostgreSQL
- Data Science & GIS:** ArcGIS, GEE, Leaflet.js, MATLAB, Mapbox.js, OpenLayers.js, Python, QGIS, R

WORK EXPERIENCE

Full Stack Developer, FaithTech, Remote Nov 2024 - Present

- Engineered a scalable admin platform for ShareBibles' distribution using Firebase, Mapbox.js, and Next.js, supporting global ministry operations, while collaborating with the team through Git for efficient version control
- Integrated PostgreSQL and Drizzle ORM for real-time data tracking and analysis, enabling teams to optimize their Bible sharing strategies with seamless and efficient data querying
- Designed intuitive, mobile-friendly interfaces with Tailwind CSS and ShadCN to enhance user experience for volunteers and leaders

GIS Developer- Contract, DataWorks NC, Durham, NC Apr 2024 – July 2024

- Analyzed high-value commercial property taxes, identifying over \$50 million in uncollected revenue, focusing on high taxes in gentrifying neighborhoods with rising valuations impacting local residents
- Developed and enhanced a demographic mapping web application (i.e., the Durham Compass), utilizing Mapbox.js, Vue.js, Node.js, and other JavaScript tools to visualize geospatial data from PostGIS and other sources, helping to comprehend the census and demographic makeup of Durham
- Automated data collection and processing by writing R scripts using packages like tidycensus to input census, real estate, property tax, and eviction case records, among other data, as metric data for the interactive web application

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

KEY GIS AND SOFTWARE PROJECTS

Akunna Writes (Built with: Firebase, Vite.js, React.js, Tailwind CSS)

- Developed a blog web app for posting short narratives and translations in various languages, enabling users to log in, view, and contribute
- Purpose: To promote Igbo language literacy and cultivate a multicultural community by offering a platform for diverse voices to share stories and translations, while also serving as a source of personal motivation during challenging times

Faithify (Built with: Expo Go, React Native, TypeScript, Firebase)

- Developed a cross-platform Christian mobile app featuring themed scripture verses and an interactive quiz for memorization
- Purpose: To deepen faith and enhance scripture memorization through engaging, personalized content

Level of Traffic Stress Road Classification and Bike Lane Recommendations (Built with: R, ArcGIS Pro)

- Classified road network data of Chapel Hill, NC into LTS categories using lane count, number of intersections, and traffic flow, and created vector layers to map low-stress routes with recommended bike lane additions
- Purpose: To support safer cycling, assist UNC's Department of City and Regional Planning, and help reduce demand for limited campus parking

Neptune Technologies Application Platform (Built with: HTML, Tailwind CSS, BootStrap, JavaScript, Node.js, Express.js, Google Cloud, Python)

- Leveraged data mining insights to develop a mobile-responsive job application web platform with a complementary applicant tracking system
- Purpose: To streamline hiring with an ultra-selective ATS that automates evaluation and identifies the top 10% of applicants based on resumes, form inputs, and cover letter quality

Nexus (Built with: MongoDB, Mongoose, Node.js, Express.js, React.js, Tailwind CSS, Vite.js)

- Engineered a mobile responsive therapy alternative social media platform for anonymous sharing of self-help resources and tools
- Purpose: To provide a free therapy alternative app fostering mental health support and community healing, while gaining experience in designing web apps with left bars, right bars, and a central content section

The Counterfeit (Built with: Next.js, Firebase, Neon (PostgreSQL), Contentful Headless CMS, Tailwind CSS, Leaflet.js, TypeScript)

- Designed a newspaper-themed Web GIS eschatological app featuring an interactive map, resources, a discussion forum, newsletter and more
- Purpose: To help believers better understand apocalyptic books like Revelation and Daniel by exploring related themes in other Abrahamic faiths, providing essential insight to put the missing pieces of the puzzle together