

# JASON CHARWIN

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## EDUCATION

**University of North Carolina - Chapel Hill**  
*Bachelor's, Data Science*

**August 2024 - June 2027**  
*GPA: 3.7*

## PROFESSIONAL EXPERIENCE

### GBCS Group

*Data Science Intern*

**Remote**

*August 2025 - Present*

- Developed and deployed predictive models to analyze search performance, content trends, and conversion patterns across platforms
- Cleaned and structured large-scale keyword and engagement datasets using pandas and NumPy, engineering features to improve training accuracy
- Experimented with regression and clustering models to identify growth levers and audience segments, integrating results into a live KPI dashboard built with Plotly and Flask
- Collaborated cross-functionally to present data-driven insights that refined content strategy and increased organic traffic efficiency.

### Hope Street Free Clinic

*Data Analytics Intern*

**Charlotte, NC**

*December 2024 - August 2025*

- Designed and implemented a resource allocation optimization model to determine optimal clinic site placements and procedure mixes, maximizing patient reach under staffing and supply constraints
- Built a full-stack data system integrating a Python + Flask backend, SQLite database, and a lightweight React-based intake interface to digitize scheduling and patient records
- Analyzed historical data to identify under-served neighborhoods, producing actionable recommendations that increased service efficiency and cut idle time by 60%
- Authored a deployment playbook standardizing data-driven planning for future community events.

## PROJECTS & OUTSIDE EXPERIENCE

### Brain Bleeding Classification Model

**Chapel Hill, NC, USA**

*Machine Learning Researcher*

- Built a deep learning classification model to detect brain bleeding in CT/MRI scans using a ResNet50-based architecture
- Implemented preprocessing, augmentation, model training, evaluation, and a real-time prediction interface
- Delivered saved checkpoints, metrics, and a structured ML pipeline following reproducible research standards.
- [Link to project](#)

### F1 Corner Analysis

*Developer and Data Analyst*

**Remote**

*June 2025 - Present*

- Built a telemetry analytics system using FastF1 to process throttle, braking, and tire-degradation signals
- Applied time-series clustering and lap-delta regression models to compare driver performance across corners
- Integrated an LLM-driven natural-language interface that converts user prompts into telemetry visualizations
- Deployed the platform using Next.js and Python-backed APIs.
- [Link to project](#)

### The Search for a Second Earth

*Developer*

**Chapel Hill, NC, USA**

*September 2025 - September 2025*

- Built an interactive exoplanet explorer using NASA and ESA datasets
- Cleaned and merged more than 4,000 entries with Python, engineered habitability indicators, and deployed a high-performance Next.js interface with virtualized tables, custom filters, and planetary comparison features.
- [Link to project](#)

### Wasting No Time - Correlation Analysis on Child Wasting

*Developer*

**Chapel Hill, NC, USA**

*February 2025 - June 2025*

- Conducted a statistical and machine-learning analysis of global child wasting using WHO and World Bank datasets
- Built regression and ensemble models (Random Forest, Gradient Boosting) to identify predictors of malnutrition
- Created publication-ready visualizations and contributed to the final report presented at UNC's Data Science Showcase.

## SKILLS

**Skills:** Java, Python, Pandas, NumPy, matplotlib, Scikit-learn, Pytorch, R, iOS/Swift, TypeScript, Flask, Node.js, React.js, Next.js, Tailwind CSS, Docker, REST APIs, SQL, MongoDB, HTML/CSS, Git, CI/CD, GitHub Actions, Tableau, VS Code, AMP, Tailscale, Vercel, Agile, SCRUM, SEO, Data Analysis, Statistical Inference, Demand Forecasting, Resource Allocation Optimization, Web Development, Project Management, Teaching, Mentoring, MATLAB, Excel/Numbers/Sheets

**Languages:** Spanish, Tamil