

# Zsafia Voros

*Curriculum Vitae March 17<sup>th</sup>, 2025*

Contact: (704) 550-7246 — [zsofiav1@gmail.com](mailto:zsofiav1@gmail.com) | [zsafia.me](https://zsafia.me) | [linkedin.com/in/zsofiavoros](https://linkedin.com/in/zsofiavoros)

## EDUCATION

### University of North Carolina at Chapel Hill

*Bachelor of Science Computer Science*

Major GPA: 3.681/4.00 — Cum. GPA: 3.38/4.00

Chapel Hill, North Carolina

*August 2015 – May 2019*

### University of North Carolina at Chapel Hill

*Bachelor of Science Mathematical Decision Sciences*

Major GPA: 3.684/4.00 — Cum. GPA: 3.38/4.00

Chapel Hill, North Carolina

*August 2015 – May 2019*

## SKILLS AND INTERESTS

- **Computer Languages** — Python, R, MATLAB, SQL, SAS, Rust, C++, C, Git
- **Machine Learning** — Python (scikit-learn, TensorFlow, Keras, PyTorch), R, MATLAB
- **Data (Analysis, Visualization, Storage)** — Python (pandas, numpy, scipy, matplotlib, seaborn), R (dplyr, GGplot2), Tableau, SQL, PostgreSQL, SQLite, MongoDB, AWS, PySpark, Apache Spark, Apache Hadoop
- **Relevant coursework** — STOR 565: Machine Learning, STOR 556: Advanced Methods of Data Analytics, COMP 555: Bio-Algorithms, COMP 550: Algorithms & Analysis, MATH 547: Linear Algebra for Applied Mathematics, STOR 555: Mathematical Statistics, STOR 465: Simulation for Analytics, COMP 585: Serious Games, STOR 415: Optimization, STOR 445: Stochastic Modeling, COMP 521: Files & Databases
- **Interests** — data analytics, data visualization, applied mathematics, deep / machine learning, natural language processing, linguistics, number theory, bioinformatics, omics data analysis, statistical genetics, biostatistics, topology, graph theory, music theory, mathematics and fiber arts, tessellations, game design, game development

## EXPERIENCE

### Part-Time Student

*Wake Technical Community College*

Raleigh, North Carolina

*August 2024 – January 2025*

- BioWork Process Technician Certificate: <https://www.ncbionetwork.org/biowork>

### Leave of Absence

*June 2023 – August 2024*

- Caregiver for family member during illness.

### Data Engineer

*Blue Cross and Blue Shield of North Carolina*

Durham, North Carolina

*July 2021 – June 2023*

- Coordinated efforts in a Master Data Management initiative aimed at standardizing subscriber identification across various systems. Built data pipelines and automated test-scripts for database QA (Dataiku, Python, PySpark, SQL).
- Coordinated with multiple groups including business owners, QA testers, and platform teams to promote database changes into production by following defined change management processes.
- Managed and analyzed internal administrative data to ensure compliance with performance thresholds. Implemented data pipelines for computing new metrics and optimized existing automation.
- Handled CI/CD pipelines for seamless integration of new corporate groups for continuous monitoring and analysis.
- Conducted exploratory work in workflow automation for exporting data to external vendors (Pega, Power Automate).

### Rotational Development Program Associate

*Blue Cross and Blue Shield of North Carolina*

Durham, North Carolina

*July 2019 – July 2021*

- Data Engineering, Strategic Data Management
  - (Full Data Engineering Experience Listed Above)
- Advanced Analytics, Data and Analytics
  - Developed predictive machine learning models to forecast food insecurity in NC communities and individual members, to provide a basis for program outreach as a part of [Blue Cross NC Food Insecurity initiative](#).
  - Conducted comprehensive literature reviews and data mining from multiple sources to formulate hypotheses, target pilot program populations, and devise pre-and post-program survey strategies and analysis frameworks.
  - Performed ad-hoc data analysis using Agile methodologies to explore social determinants of health and pinpoint potential target populations for outreach programs.
- Knowledge Management, Operations
  - Developed and refined standard operating procedures and internal job aids for knowledge management (KM) team.
  - Successfully led a language processing optimization effort to enhance clarity and readability of operations documentation. Deployed solution, which consisted of VBA scripting, web-scraping, and automated reporting.
  - Improved pipeline of SharePoint workflow ingestion to match issues with the most qualified KM team member.
  - Executed comprehensive User Acceptance Testing for Salesforce integrations. Explored various knowledge base migrations, and innovated Salesforce Lightning solutions to address evolving team requirements.

**Data Architect Analyst & Business Associate***Blue Cross and Blue Shield of North Carolina*

Durham, North Carolina

May 2018 – August 2019

- Developed and refined scripts for transitioning existing data models and respective metadata from Erwin to ER Studio.
- Performed data model analysis and cleansing in ER Studio, ensuring integrity across enterprise-level architectures.
- Authored comprehensive technical documentation and release notes for changes made.

**Design & Graphics Editor** (<https://www.dailytarheel.com/staff/zsofia-voros/>)*The Daily Tar Heel*

Chapel Hill, North Carolina

August 2017 – May 2018

- Ingested and visualized large datasets, collaborating with editorial teams to produce engaging, informative charts, diagrams, and graphics that aligned with content narratives. Directed page-layouts for the entire newspaper.

**Programming Instructor***iD Tech, North Carolina State University*

Raleigh, North Carolina

May 2016 – August 2016 / May 2017 – August 2017

- Taught Java Programming and Java Programming with Minecraft Modding to classes of 8 students at a time.
- Ensured that all students met the set curriculum goals and completed final programming project.
- Learned software and curriculum for multiple courses and prepared weekly lesson plans.

**PROJECTS**

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- [Personal Website \(zsofia.me\)](https://zsofia.me) (*In Progress*) – Personal website detailing small programming projects & personal notes
- [CS Machine Learning Final Project](#) (*Project Lead*) – Directed a final student project focusing on the application of machine learning to analyze MOBA gameplay datasets. Used Python and R
- [ST Machine Learning Final Project](#) (*Team Member*) – Developed an ordinal regression algorithm with team members to predict heart disease severity in open-source patient data. Used Python
- [Modern Web Programming](#) (*Team Member*) – Created a browser-friendly webpage showing an interactive flight map using synthetic airline data. Used HTML, JavaScript, AJAX, Google API, CSS
- [Serious Games](#) (*Software Architect and Project Manager*) – Worked with university client to build an educational game for undergraduate students that teaches the process of cell division. Used Unity and C#