

# Zsafia Voros

*Curriculum Vitae September 17<sup>th</sup>, 2023*

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## EDUCATION

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### 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

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- **Computer Languages** — Python, R, SQL, Rust, C++, C, MATLAB, 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, topology, graph theory, music theory, mathematics and fiber arts, tessellations, game design, game theory

## EXPERIENCE

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### 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).
- Collaborated with the Performance Guarantee group to manage and analyze internal administrative data to ensure compliance with performance thresholds. Implemented and optimized data pipelines computing said metrics.
- Conducted exploratory work in workflow automation for exporting data to external vendors (Pega, Power Automate).
- Handled CI/CD pipelines for seamless integration of new corporate groups for continuous monitoring and analysis.
- Demonstrated extensive proficiency in Tableau, frequently aiding others in optimizing their Tableau usage and correcting errors. Played a pivotal role in enhancing team efficiency and data presentation quality.
- Coordinated with business owners, QA testers, and platform teams to promote changes into production using defined change management processes.

### 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 using Python 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 future 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#