# Ryan Biswas

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## EDUCATION

**University of Virginia**                                                                                          July 2022

B.S. Computer Science | Minor Data Science                                           Charlottesville, VA

- **Coursework**: Data Structures, Discrete Math, Intro Cybersecurity, Intro Machine Learning, Data Science with R, Regression Analysis, Algorithms, Computer Architecture, Probability, Software Testing, Web Programming Languages, Databases, Operating Systems, Game Development

**Northern Virginia Community College**                                                              May 2020

AS. Computer Science – Magna Cum Laude

Reston, VA

## WORK EXPERIENCE

**Pac-Atlantic – eCommerce Business**                                              October 2013 – Present

Market Researcher/Supply Chain Manager

Fairfax, VA

- Co-Founded a second-hand computer part re-selling business and later expanded to selling card games, bathroom mats, live plants and exotic live shrimps on eBay store. Earned over $20,000 in lifetime sales.
- Applied intermediate knowledge of the Chinese language and finance to research and identify competitive deals directly from Chinese wholesalers and import them into the United States.

## PROJECTS

- Currently developing a web browser plug-in for learning foreign languages that algorithmically swaps in foreign words and sentences in web pages. The goal is to decipher the foreign text using context clues from the surrounding words which are in the user's native language. This attempts to emulate how children would learn a language for the first time. Additionally, this plug-in aims to simplify studying/learning languages by naturally integrating into a person's regular web-browsing routine.
- Currently developing a React web-app that helps users catalog movies/tv shows they have watched in the past and use various media metrics to suggest new content to watch. I am currently tweaking the algorithm to suggest more relevant content and plan on adding a section for suggesting new novels to read.
- Developed a database management web app for a farmer using Angular framework and MySQL database. The database contained 7 3NF tables that are relevant to the operation of a farm and provides a user interface for making various custom SQL queries without having explicit knowledge of SQL.
- Developed a web-based touch-typing practice game using Phaser JavaScript framework. The game was designed to target specific typo-prone areas of the keyboard by using curated word lists that featured words from those troublesome keyboard areas.
- Developed a database management software in C# for an animal shelter. This program was able to store shelter data of over 50,000 animals into a custom encoded database file without any SQL.
- Programmed a basic image editing program on an ATmega32U4 microcontroller using C. The microcontroller took input from a set of mechanical knobs to draw on an OLED screen.
- Developed a flat-plane 360-degree distance mapper by attaching a LiDAR sensor on top of a spinning motor. The sensor maps different distance readings to a graph, which once charted showed a 2D image of the surroundings.

## SKILLS

**Technical Languages:** Python, C/C++, Java, C#, Arduino, Linux/bash, Git, MATLAB, & X86 Assembly.

**Web Development:** Angular, React, Phaser3, HTML, CSS, JavaScript/TypeScript, MySQL, & React-Native.

**Spoken Languages**: English, Bengali, Hindi, French, & Chinese.