RYAN BISWAS

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EDUCATION

University of Virginia *expected graduation* July 2022

B.S. Computer Science | Minor Data Science – Current GPA: 3.696

Charlottesville, VA

- **Coursework**: Data Structures, Discrete Math, Intro Cybersecurity, Machine Learning, Data Science with R, Regression Analysis, Algorithms, Computer Architecture, Probability, Software Testing, Web Programming Languages, Databases, Operating Systems, Mobile App Dev, & Network Security.

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 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 randomly generated 3D maze game in Java and later ported it over to Android. Implemented A* algorithm to automatically solve the randomly generated maze.
- Developed a database management software in C# for an animal shelter. This program was able to encode shelter data of over 50,000 animals into a persistent data file.
- Programmed an elementary image editing program on an ATmega32U4 microcontroller using C. The microcontroller was controlled a matrix array of mechanical switches 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 populated showed a 2D image of the surroundings.

SKILLS

Technologies: Python, C/C++, Java, C#, Arduino, Linux/bash, Android, HTML, CSS, Git, & X86 Assembly.
Currently Learning: React, JavaScript, SQL, & React-Native.
Spoken Languages: English, Bengali, Hindi, French, & Chinese.