Kellen Bavis

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EDUCATION

University at Albany, Albany, NY *Expected May 2023*

B.A., Computer Science *GPA 3.89/4.00*

Minor in Mathematics & Informatics

- Dean's List 2019, 2020 & 2021

Coursework: Discrete Structures • Data Structures • Program Hardware Software Interface • Design and Analysis Algorithm • Assembly Computer Organization • Automata & Formal Languages • Societal Ethical Implications • Operating Systems • Principles Programming Language • Database Systems • Calculus I, II • Calculus of Several Variables • Linear Algebra • Discrete Probability • Topics Statistical Inference

SKILLS & TECHNICAL TOOLS

Languages: Java, C, Python, SQL, HTML, CSS, JavaScript, R, and Scheme

Technologies/Frameworks: Linux, Unix, GitHub, TensorFlow, AWS, Express, React, MongoDB, and Docker

EXPERIENCE

Software Engineer Intern - Buffalo, NY *June 2022– Present*

Frontier Science

- Developed a Java command-line application that performs a set of configurable consistency checks against Ingres system database tables.
- Execution of this application will send an Excel report via email containing the outcomes of the checks to specified personnel.
- Frontier Science was able to discover over 67,000 inconsistencies present between their dictionary and system tables following the execution of this program.

PROJECTS

Portfolio Website | *JavaScript, HTML, CSS, ReactJS, ExpressJS, MongoDB, NodeJS, Docker, Caddy, AWS*

- Designed a full-stack application that's purpose is to showcase my skills, socials, and projects.
- Utilizes MailGun API to allow individuals or companies to contact me for any potential opportunities.
- Incorporated reverse proxy to ensure secure internet communication through HTTPS.

Interpreter | *Java*

- Designed a program to execute instructions written in BASIC through the process of lexical analysis, parsing, semantic analysis, optimization, and code generation.
- Effectively reconstructed this app's functionality in the programming language C to cement the concepts related to the principles of programming languages.

Handwriting Detection | *Python, Machine Learning, TensorFlow*

- Filtered and normalized a dataset containing 60000 images of handwritten numeric values.
- Trained a neural network with variable thresholds to predict the likelihood of a given image being a specific numeric value with 98% accuracy.

Shell | *C*

- Developed a program that effectively replicates the Linux shell program.
- Implemented the concepts of I/O redirection, parsing, and the synchronization of concurrent processes.