William Arachelian

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EDUCATION

Stevens Institute of Technology Hoboken, NJ
Bachelor of Science in Computer Science *May 2026*

GPA: 3.795
Relevant Coursework: Linear Algebra, Multivariable Calculus, Statistics, Discrete Structures, Data Structures, Algorithms, Computer Architecture, Systems Programming, Web Programming, Deep Learning, Database Management Systems

TECHNICAL SKILLS

Certifications: Data Analysis With Python (freecodecamp.org), Back End Development and APIs (freecodecamp.org)
Programming Languages: Java, Python, R, JavaScript, PostgreSQL, C, C++, HTML/CSS, Racket, Assembly
Libraries/Frameworks: Node, Express, MongoDB/Mongoose, Django, Keras, TensorFlow
Software: Vectorworks, Unity, Microsoft Office

PROJECTS

Iconique Website | *Express, MongoDB, Handlebars, Tailwind CSS* March 2024 - May 2024
- Managed a team of 5 to develop clothing social media website named 'Iconique'
- Communicated effectively between group members to determine needs, consider ideas, and address concerns, and scheduled weekly meetings to work on development together and promote collaboration
- Implemented routing, form input handling, and client-side scripting for user and post creation, editing, deletion, and authentication,
- Developed middleware to manage site functionality and accessibility based on authentication state of user
- Created helper functions for input validation to help modularize development process, and spent time debugging various areas

Gender Voice Classification | *Pandas, NumPy, sklearn* March 2022
- Cleaned and normalized training and testing data storing information about the audio frequencies of male and female voices
- Applied the RandomForestClassifier machine learning model to predict the males and female classes in the test dataframe
- Used confusion matrix and classification report to evaluate the accuracy of the prediction model with test data
- Resulted in minimal false values, and a precision and recall of .98, indicating a strong and accurate prediction model

WORK EXPERIENCE

New Quiz Tool Research | *Django, CanvasAPI, pyspellchecker* June 2023 – August 2023
Research Assistant
- Worked in a team of 3 to build an external web application for canvas that regrades coding quizzes
- extracted quiz data and uploaded regraded quiz automatically using CanvasAPI
- Developed a grading algorithm using a Levenshtein distance model to accurately check for typos in student submissions
- Created test cases for grading algorithm using unittest framework and optimized grading algorithm, increasing run-time efficiency by 22.9%

Code Advantage January 2023 – Present
Coding Instructor
- Taught students at after-school coding programs various curriculum involving programming languages scratch and JavaScript
- Developed students skills in coding concepts such as time complexity, algorithms, object-oriented programming, debugging, and game development
- Worked closely with school advisors to evaluate students performance and provide necessary accommodations