

William Arachelian

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EDUCATION

Stevens Institute of Technology

Hoboken, NJ

Bachelor of Science, Major in Computer Science, Minor in Pure and Applied Mathematics

May 2026

GPA: 3.795 | Deans List

Coursework: Linear Algebra, Multi-variable Calculus, Statistics, Discrete Structures, Data Structures, Algorithms, Computer Architecture, Systems Programming, Web Programming, Deep Learning, Database Management Systems

WORK EXPERIENCE

Stevens Institute of Technology

Jun 2023 – Aug 2023

Research Assistant

- Worked in a team of 3 to develop a beta version of an ed-tech web app that accurately grades coding quizzes for teaching assistants using Django, SQLite, and CanvasAPI, resulting in beta deployment in a class setting the following semester
- Designed a program to extract desired quiz data from Canvas and re-upload regraded quizzes automatically
- Developed algorithm based on Levenshtein distance to accurately identify typos in submissions and regrade answers based on professor's criteria
- Created test cases for grading algorithm, and optimized grading algorithm, increasing run-time efficiency by 22.9%

Code Advantage

Jan 2023 – Present

Coding Instructor

- Taught 150+ students at after-school coding programs with various curricula involving Scratch, Java, Python, and JavaScript, and developed new curriculum for future courses
- Advanced students skills in coding concepts such as time complexity, algorithms, object-oriented programming, debugging, and game development, resulting in 100% completion of projects
- Worked closely with school advisors to evaluate students performance and provide necessary accommodations

PROJECTS

Iconique | *Express, MongoDB, Handlebars, TailwindCSS*

Feb 2024 - May 2024

- Worked in a team of 5 to develop a clothing social media website named Iconique
- Communicated effectively between group members to determine needs, consider ideas, 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 the authentication state of the user

Deep Learning Machine Translation | *Pandas, NumPy, Keras, NLTK, sklearn*

Mar 2024 - Apr 2024

- Developed a Seq2Seq machine learning model with a bi-directional LSTM encoder and LSTM decoder to translate English phrases into Spanish
- Resulted in a BLEU score of .3697, indicating understandable to good translations

MHacks 16 @ UMich | *Django, PaddleOCR, OpenCV, pandas*

Nov 2023

- Worked in a team of 4 to create a nutrition app that scans nutrition labels and assesses daily intake of important metrics
- Extracted information from nutrition label images to text using PaddleOCR, and OpenCV, and filtered results using regex to get desired metrics
- Researched, and developed program to calculate optimal intake for user based on users characteristics

Gender Voice Classification | *Pandas, NumPy, sklearn*

Mar 2022

- Applied the RandomForestClassifier machine learning model to predict gender based on audio frequency data
- Resulted in minimal false values, and a precision and recall of .98, indicating a strong and accurate prediction model

ADDITIONAL

Certifications: Data Analysis With Python , Back End Development and APIs

Programming Languages: Java, Python, R, JavaScript, PostgreSQL, C, C++, HTML/CSS, Racket, Assembly

Technical Skills: Node, Express, MongoDB/Mongoose, React, Framer Motion, Git, Django, Keras, TensorFlow