Joshua Bernstein

Mahwah, NJ, 07430 | 201-249-3266 | joshuatbernstein@gmail.com | joshbernsteint.github.io | LinkedIn

EDUCATION & LANGUAGES

Stevens Institute of Technology, Hoboken, NJ— *Bachelors of Computer Science* (2021 – Spring 2025)
- 3.9 GPA, Stevens Pinnacle Scholar. Expected graduation date Spring 2025.
- Relevant coursework: Data structures–A, Systems Programming–A, Algorithms–A, Computer Architecture–A
- Native English speaker, Professional French Skills (Recipient of the NJDOE Seal of Biliteracy in French)

SKILLS

- Adept at a variety of different programming languages including:
  - Python, C/C++, Java, ARMv8 Assembly, Javascript, Racket, OCaml, R, C#, Bash
- Highly skilled with Git and managing version control tools.
- Versed in utilizing cloud-based virtual machines via Secure Socket Shell(SSH) Protocol.
- Proficient in manipulating and illustrating data with GIS softwares, including ArcMap and ArcGIS Pro.

EXPERIENCE

Course Assistant— *Stevens Institute of Technology, Hoboken, NJ* (Sept 2023 – Present)
- Refined class assignments and homeworks to ensure a lack of typographical and logical errors.
- Taught weekly labs to 35 students to instruct in the clarification of concepts and their practical uses in programming.
- Streamlined the grading process by assisting in the construction of an interface to automatically grade homeworks.
- Conducted weekly office hours to answer any questions regarding the subject material.

Research Assistant – *Stevens Institute of Technology, Hoboken, NJ* (Summer 2022, Summer 2023)
- Spearheaded design and construction of Python scripts to download, analyze, and store over 690,000 image files safely.
- Utilized aforementioned scripts to effectively filter images to curate a sample of 3,600 high-quality image files.
- Implemented scripts to interact with GIS software technologies such as ArcGIS to correlate geographic image metadata with a 2D map of Mercury to visualize physical locations of each image file.
- Coordinated with others in the research group to facilitate efficient and standardized code.

PROJECTS

Samwise— *A Custom Virtual Assistant* (Fall 2023 – Present) – GitHub Repository
- Implemented a framework for a customizable virtual assistant with modifiable actions.
- Able to interpret spoken voice, and complete associated actions according to voice input.
- Engineered to run on a Raspberry Pi, with socket communication between different devices.
- Built a Python tool to create a formatted JSON file to standardize the process of creating custom commands.

ANGEL — *Node-based Downloader and Converter Application* (Summer 2023) – GitHub Repository
- Electron-based Node and React application to download and convert audio and video files.
- Features ability to choose download quality, either through video resolution, audio quality, or frame rate.
- Utilizes ffmpeg for video and audio conversion from any supported container format to another.
- Editable settings including different view modes, custom download preferences, and accessibility options.

Scrumptious Solar Services— *Full-stack Web Application* (Spring 2023) – GitHub Repository
- Directed a 6-person team in the production of a web application to streamline the processes of a solar panel company.
- Integrated several different technologies, including React, Express, Stripe, and Firebase in the end-product.
- Differentiated user functions based on their assigned role in the company.
- Implemented email and private chat features to facilitate communication between employees and customers.

VOLUNTEER & EXTRACURRICULARS

Secretary— *Stevens Computer Science Club* (Fall 2023 – Present)
- Composed weekly newsletter to inform the over 200 club members of important events and opportunities.
- Ensured club meetings had a room reserved with adequate space for all members.
- Guided workshops and presentations on essential computer science topics.

Puppy Raiser— *The Seeing Eye*(2019 – Present)
- Tasked with training an 8-week old puppy for 12-14 months, while instructing the puppy in basic commands.
- Engaged in activities with other local raisers to expose the puppies to a greater number of different sensory experiences.
- Publicized job and role of guide dogs through presentations and appearances at local fairs.

AWARDS & ACCOLADES

- Stevens Institute of Technology Dean's List– Fall 2021, Spring 2022, Fall 2022, Spring 2023
- Outstanding Project Award in recognition of work done on **Scrumptious Solar Services** – Spring 2023