tomer aberbach

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+ education

The College of New Jersey (TCNJ)
BS Computer Science 2020
Mathematics Minor
Cumulative GPA: 3.9/4.0
Dean's List 4/4 Semesters
Golden Key Member (Top 15%)
UPE Member

+ skills

proficient: Kotlin, Java, C, JavaScript, TypeScript, HTML, Handlebars, CSS, LaTeX, Markdown, Regular Expressions
familiar: PostgreSQL, C#, C++, Python
tools & libraries: Git, Node.js, NPM, Gulp, JavaFX, ANTLR, Bison, Yacc, MongoDB, SVMLight, SLURM, Game Maker Studio
fields: Compilers, Software Engineering, Music Theory, Linguistics, Web Development, Machine Learning, NLP, Databases
native languages: English, Hebrew

+ awards

HackTCNJ · Best Technical Project   Feb. 2018
Designed and coded the **WTSR 91.3FM Web Player (above)** for a 24 hour hackathon.

Google · Google Games 2nd Place   Apr. 2017
A logic and programming contest hosted by Google in New York City. Came in 2nd place out of 20 teams.

+ employment

Computer Science Department Tutor   Apr. 2018 to Current
The College of New Jersey (TCNJ)
Java, C++, C, PostgreSQL, Regular Expressions
Assisting and tutoring TCNJ students in their computer science coursework ranging from introductory concepts such as methods, inheritance, and polymorphism to data structures, discrete math, algorithms, computer architecture, operating systems, and databases.

Java Tutor   Sept. 2017 to May 2018
Varsity Tutors
Java
Developed and provided regularly scheduled personally tailored lessons on AP Computer Science to high school students in an online one-on-one setting.

Mentored Undergraduate Student Experience (MUSE) Researcher   June 2017 to July 2017
The College of New Jersey (TCNJ)
Java, Python | Weka, SVMLight, LIBSVM, scikit-learn, SLURM
Collaborated with another student in a selective 8-week full-time undergraduate research program. Developed an automated machine learning curve analysis infrastructure. Implemented active learning stopping methods to train accurate text classifiers with the minimal amount of training data required. Quantified the effectiveness of the different methods using variance and Cohen's kappa.

Undergraduate Student Researcher   Jan. 2017 to May 2017
The College of New Jersey (TCNJ)
Java, Python | Weka, scikit-learn, SLURM
Collaborated with a small team (5) to test machine learning algorithms with varying amounts of training data. Developed a text normalization and feature extraction algorithm for text classification using regular expressions, stop words, and term frequency-inverse document frequency.

+ personal projects

Stateless Linear Algebra Library   Aug. 2018 to Current
Kotlin
Designing and coding a stateless linear algebra library where values are lazily evaluated using function composition rather than intermediate values. Inspired by the *Kotlin Sequence* interface.

Tomer Aberbach Static Website Generator   May 2018 to July 2018
HTML, Markdown, Handlebars, CSS, SVG, JavaScript, YAML | Node.js, Gulp
Designed and coded a static website generator for my portfolio website using Node.js and Gulp. Automated the creation and pagination of the website's pages using YAML Frontmatter, Markdown, and Handlebars, as well as the minification and optimization of its source code and assets.

WTSR 91.3FM Web Player   Feb. 2018 to Feb. 2018
HTML, CSS, JavaScript | Firebase, Node.js, Gulp, ACRCloud
Designed and coded an online web player for TCNJ's official fully student-run radio station complete with audio controls, audio fingerprinting for real-time song identification, and Spotify song links, for HackTCNJ.

Mano Basic Computer Assembler and Simulator   Oct. 2017 to Jan. 2018
Java | JavaFX
Developed, tested, and deployed an assembler and hardware simulator for the Mano Basic Computer, a 16 bit computer, complete with a user interface and documentation. Adopted for academic use in a college level computer architecture course.

+ activities

Stitches Knit and Crochet Club · Publicist   Sept. 2017 to Current
Maintaining club presence on social media and crocheting fun projects such as blankets.

Association for Computing Machinery (ACM) · Webmaster   Apr. 2018 to Current
Maintaining club website and holding coding challenges, demo tutorials, and hackathons.

Women in Computer Science (WICS) · Webmaster   Apr. 2018 to Current
Maintaining club website and planning and participating in discussions.