

ADAM BURKE

Software Developer With An Interest In Theory and Design

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Interests : Theoretical Computer Science, Topology, Urban Cycling, Spoken Languages, Foreign Cooking, Jungian Psychology

EDUCATION

Sep 2019 - May 2023 **Northeastern University, Boston, MA** | Bachelor of Science in Computer Science and Mathematics.

GPA : 3.86

Courses : Object Oriented Design, Algorithms and Data, Fundamentals of Computer Science (I, II), Foundations of Cybersecurity, Differential Equations and Linear Algebra, Group Theory, Number Theory, Improvisation

Clubs : Roxbury Robotics (former Chair), NUHacks, Northeastern Math Club, Sunrise Movement

Awards : Dean's List (all semesters), Dean's Scholarship, Northeastern University Grant, Simon and Sonia B. Cohen Scholarship, Everett Kovler Scholarship, Bulkely-Harold J. Arkava Scholarship.

EXPERIENCE

Jul 2021

Dec 2021

Co-Op, Software Engineering, DOBLE ENGINEERING COMPANY, Marlboro, MA

- > Worked in a team of 2 to extract and test a data persistence mechanism from monolithic legacy code used to serialize and deserialize C# object data, hiding the implementation behind an interface. Verified expected behavior in over 40 unit tests.
- > Implemented a C client and custom C# driver library to transmit and handle over 180 unique messages generated using Google FlatBuffers.
- > Boosted productivity by primarily using a bash terminal and custom aliases.

C# C++ C .NET Jira Bash Google FlatBuffers Git T4 Text Template

September 2021

Present

Lead Teacher, Hebrew Specialist, ANSHE EMET SYNAGOGUE, Chicago, IL

- > Is responsible for teaching upwards of 10 children how to read, write, and speak the Hebrew language through engaging games and one-on-one reading check-ins.
- > Plans a weekly curriculum to teach children about Jewish values, culture, and tradition using myriad texts, media, and activities.

Teaching Hebrew Socratic Dialogue

PROJECTS

FUNSTRUCTS

AUG 2021 - PRESENT

github.com/amburke815/FunStructs

A functional-oriented lightweight Java library that takes advantage of Java 8's functional interfaces and lambda abstraction to define common operations over graphs, trees, lists, matrices, etc in order to speed up and simplify the development process.

Java Lambda Calculus Data Structures Unit Testing

IMAGE MANIPULATION AND ENHANCEMENT, CS3500 OBJECT ORIENTED DESIGN

MAY 2021 - JUN 2021

github.com/amburke815/Image-Manipulation-and-Enhancement

Developed a full-scale image processing GUI desktop application using the model-view-controller design pattern, with an emphasis on software extensibility and reusability. The application supports a wide range of image file types, image filters, multilayer editing, and interactive scripting within the GUI using a homemade command language. Access provided upon request.

Java Swing GUI Desktop Applications Object Oriented Design Design Patterns

TECHNICAL SKILLS

Programming Languages Java, C#, Python, C++, Racket, Haskell, Rust, Bash, SQL, MATLAB

Markup Languages HTML5, XML, Markdown, \LaTeX

Frameworks .NET

Developer Environments IntelliJ Idea, Eclipse, Visual Studio, CLion, PyCharm

Programs Vim, Git, Sqlite3, BitBucket, Jira, Google BigQuery, HashCat, GPG

Operating Systems GNU/Linux, Windows, MacOS

Spoken Languages Hebrew (fluent), Spanish (semi-fluent)