Benjamin E. Jordan

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Portfolio Website

Education

Rochester Institute of Technology [Expected Dec 2022]
B.S. in Computer Science, 3.6 GPA

Skills

Programming: C#, Java, Javascript, C/C++, Python, SQL, ASP.NET, Angular, React
Other Relevant Skills: Git, JetBrains, Visual Studio, Linux, Windows, Unit Testing, Agile

Experience

Research Software Developer [Rochester NY, August 2022 - Present]

- Hired by RIT faculty to develop an interactive listening test to collect data on how participants interpret audio
- Technologies used include Angular, Typescript, and WebGL/Three.js

SWE Internship at Carestream [Rochester NY, May 2022 - August 2022]

- Developed and maintained Carestream's ImageView x-ray imaging software
- Worked on 1 of 5 agile development teams
- Technologies used during this experience include C#, ASP.NET, and AngularJS

Research and Software Development Intern [Rochester NY, June 2020 - Dec 2021]

- Independently implemented software for a research project with Dr. Sungyoung Kim to test the effectiveness of hybrid cochlear implants
- Designed software architecture and the implemented the 8 training test algorithms found in the program
- Participated in weekly standup meetings where software progress was demoed
- Technologies used include Javascript, PHP, SQL, HTML, and CSS

Instructor at UCode Ithaca [Ithaca NY, June 2019 - August 2019]

- Taught Python and programming skills to children ages 6-13 in a group setting

Coursework

Computer Systems, Algorithms, Programming Language Concepts, Operating Systems, Artificial Intelligence, Machine Learning, Databases, Graph Theory, Cryptography, Parallel & Distributed Systems, Professional Communications

Activities

RIT Varsity Track and Field [March 2019 - Present]
RIT EDM Club Founder & Officer [May 2020 - Present]
RIT AI Club Member [September 2022 - Present]

Projects

Cochlear Implant Testing Software (Professional)

- Independently developed software used to test the effectiveness of hybrid cochlear implants
- Implemented 8 round based listening test algorithms in javascript
- Used the Web Audio API extensively to generate and process audio for each test
- Stored test data for each user in a MySQL database
- Used to collect data for academic research (As seen here and here)

Projects Cont.

EQ Audio Effect (Personal)

- Wrote a four filter parametric equalizer plugin for audio processing
- Successfully used the EQ inside personal music making software
- Written using the JUCE C++ framework

Compiler/Translator (Academic)

- Final project for Programming Language Concepts written in Java
- Group of 4 created compiler that takes a made-up programming language as input, analyzes it, and translates it into C, Python, or Java
- Individual responsibilities included creating the semantic analyser
- Analyser operates by creating a lookup table to store variables and user functions found in the parse tree
- It then searches the parse tree for patterns (ex. return statements, func calls) and reports detailed error messages if patterns are not valid

Encrypted Messenger (Academic)

- Independently created an RSA messenger for Concepts of Parallel and Distributed Systems final project
- Program sends and retrieves Base64 encoded public keys to and from a classwide server
- Uses a parallelized prime number generator to generate large RSA parameters quickly (ex. 1024 or more bits) and tests them for primality with the Miller-Rabin algorithm
- Written using C#

Awards

Liberty League All-Academic Team
RIT Presidential Merit Scholarship
Dean's List