DAVID GROSSMAN

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EDUCATION

Brown University, Sc. B. in Computer Science, GPA: 4.0/4.0 *Providence, RI* | Expected Graduation Spring 2024

- *Relevant Coursework*: Object-Oriented Programming, Algorithms and Data Structures, Discrete Structures and Probability, Computer Systems, Deep Learning, Computational Probability and Statistics

Andover High School, GPA: 4.65/4.0 *Andover, MA* | Fall 2016 - Spring 2020

- Valedictorian, AIME Qualifier (2017-2020), Math Team Captain & District Champion (2020), Harvard Book Award, Tennis Team Captain & Conference Player of the Year (2019), Rensselaer Medal for Math and Science

SOFTWARE ENGINEERING EXPERIENCE

Brown Visual Computing Lab, *Undergraduate Research Assistant* *Providence, RI* | Summer 2021 - Present

- Develop MERN stack web app for hypermedia-based knowledge work (Professor Andy van Dam's *Dash* project)
- Overhauled database search functionality with RegEx integration, Markdown documentation, and improved UI/UX
- Implemented modified PageRank algorithm to sort documents by importance in all file hierarchy views
- Operated extensive beta testing to ensure that *Dash* is stable enough for use in Brown's Hypertext/Hypermedia course

Hacker Escape, *Personal Project* *Andover, MA* | Summer 2020 - Fall 2020

- Built puzzle game in Unity with 50+ levels to teach children the fundamentals of computer science
- Created educational programming language with BASIC syntax and commands to move character through maze
- Programmed 30+ C# scripts to handle user input, display scene graphics, encode game logic, and persist data in JSON

Creative Computers for Music Composition, *Capstone Research Project* *Andover, MA* | Fall 2019 - Spring 2020

- Compiled review of literature comparing humans and computers in their abilities to perform creative tasks
- Trained TensorFlow deep learning model on 200+ pop songs to write music with chords and melody
- Conducted experiment to determine how effectively people can differentiate between human and AI composers
- Presented results to audience of 100+ people in 10-minute talk at the AHS Capstone Showcase

American Computer Science League (ACSL), *Team Captain* *Andover, MA* | Fall 2018 - Spring 2020

- Solved programming problems and written questions on graph theory, data structures, Boolean algebra, and other topics
- ACSL State Champion in Senior Division (2019, 2020)
- Second place overall at international ACSL Finals competition (2019)

New England Tennis Academy, *Mobile Developer* *Natick, MA* | Summer 2019

- Designed and developed native iOS app for tennis coaches to analyze match statistics in customizable categories
- Engineered Realm database to store data of each point, game, set, and match in object-oriented structure
- Published final version on App Store with optimizations for iPhone and iPad (100+ downloads, 4.5+ stars)

LEADERSHIP EXPERIENCE

AI Robotics Ethics Society at Brown, *Vice President* *Providence, RI* | Summer 2021 - Present

- Lecture and facilitate discussions about ethical AI at biweekly meetings with 30+ active members
- Communicate with AI experts to recruit guest speakers and learn about recent advancements in the field
- Code Python bots to track member participation and send reminders in club's Discord server

Habitat for Humanity AHS Chapter, *Cofounder & President* *Andover, MA* | Fall 2018 - Spring 2020

- Collaborated with Habitat for Humanity executives and school officials to establish nationally recognized chapter
- Orchestrated meetings, fundraisers, and volunteering trips with 20+ active members

SKILLS & INTERESTS

- **Languages**: Java, Python, C, C#, Swift, HTML/CSS, JavaScript, TypeScript, MATLAB, Golang
- **Technical**: Node.js, React, NumPy, Pandas, Scikit-learn, TensorFlow, PyTorch, Realm, Unity, Xcode, LaTeX, Logic Pro X
- **Certifications**: DeepLearning.AI TensorFlow Developer Professional, IBM AI Engineering Professional
- **Interests**: Full-stack development, Computer vision, Tennis, Chess, Music composition, Poker