Benjamin D. Porter

CONTACT INFORMATION

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EDUCATION

The University of Texas at Austin (B.S. in Computer Science) **2017 - 2021**

- Turing Scholars Honors Program

RELEVANT COURSEWORK (H denotes an honors course)

Algorithms/Data Structures (H), Discrete Mathematics (H), Integral/Multivariable Calculus

EXPERIENCE

Research Intern - Parasol Laboratory, Texas A&M University **Summer 2016**

- Applied sampling-based motion planning to predict ligand binding sites on a protein surface
- Implemented metrics in C++ using Parasol Motion Planning Library (PMPL) to gauge candidate binding sites' favorability, parsing protein database files and writing metrics to text files
- Proposed future application of metrics to a neural network approach
- Personal webpage: `https://parasol.tamu.edu/people/bporter`
- Faculty advisor: Dr. Nancy M. Amato

PERSONAL PROJECTS

Pest Control - Team Lead **Nov. 2016 - Apr. 2017**

- Developed a video game with the Unity engine in a team of four for the SkillsUSA game design contest
- Implemented mechanic to allow the player to walk on surfaces, facilitated effective communication between art and development teams

Tetris (data structures coursework) **Oct. 2017**

- Implemented Tetris game mechanics in Java such as rotations and resolution of collisions
- Built a simple AI to play Tetris

Random Writing Generator (data structures coursework) **Sept. 2017**

- Used Markov chains in Java to generate pseudo-random text from a source text

Truth Table Generator **Sept. 2017 - present**

- Java parser to evaluate propositional logic expressions and produce output of truth tables in the form of a LaTeX tabular environment

HONORS

Leo and Catherine E. Schein Memorial Scholarship **Fall 2017**

- Endowed scholarship from the Department of Computer Science for distinguished undergruaduates in the Turing Scholars program

SKILLS

Proficient: Java, Unity3D **Familiar:** C++, C#, Git, LaTeX **Exposure:** Python, web frontend

EXTRACURRICULAR ACTIVITIES

Competitive programming, Association of Computing Machinery, Information and Systems Security Society (ISSS)

INTERESTS

Machine learning, game design, computational biology, CS education

HIGH SCHOOL ACTIVITIES/HONORS

UIL Computer Science competitor
National Merit Semifinalist