Michael Thramann

mthramann@gmail.com • mthramann.github.io • github.com/mthramann

EDUCATION

TUFTS UNIVERSITY **Medford, MA**
Candidate for Bachelor of Science 08/2016 – 02/2020 (expected)
Majors: Computer Science and Applied Mathematics; **GPA: 3.97/4.00**
Relevant Coursework: Programming Languages, Algorithms, Web Development, Machine Structure and Assembly Language, Numerical Analysis, Mathematical Modeling and Computation, Numerical Linear Algebra, Probability, Discrete Mathematics, Data Structures, Microeconomic Theory

OXFORD UNIVERSITY, ST. CATHERINE'S COLLEGE **OXFORD, UK**
***Visiting Student in Computer Science;* GPA: 4.00/4.00** 01/2019 – 06/2019
Relevant Coursework: Computer Networks, Concurrency, Architecture, Quantum Information, Concurrent Programming

EXPERIENCE

AB INITIO SOFTWARE **Lexington, MA**
Software Development Intern 06/2019 – 08/2019
- Finished 11-week intern project in third week, and completed two additional projects
- Refactored significant portion of product to allow for future extensibility and compatibility
- Devised optimal implementation that two senior developers (~30 years each) at company hadn't considered
- Programmed across stack and products

TUFTS UNIVERSITY, DEPARTMENT OF COMPUTER SCIENCE **Medford, MA**
REU Participant – Computational Geometry Group 06/2018 – 10/2018
- Read and discussed research on online TSPN, imprecise plane graphs, and coloring-induced connectedness
- Contributed to algorithm design and hardness analysis under one-vertex swaps on graph districts
- Coauthored paper currently submitted for publication

TUFTS UNIVERSITY, DEPARTMENT OF MATHEMATICS **Medford, MA**
Undergraduate Researcher 05/2017 – 10/2017
- Adapted tensor product and tensor PCA framework to video compression algorithm using MatLab
- Designed reconstruction algorithms for Compton-Scattering Tomography (also in MatLab)
- Used LaTex to record and present findings at Tufts Data Intensive Studies Symposium

SKILLS

Languages: C, C++, Python, JavaScript, SML, Scheme, Smalltalk, MatLab, HTML, CSS, Java, Elm, x86 Assembly

Software Packages: Bash, jQuery, Nodejs, Express, React, D3, Perforce, Git, LaTex, GDB, Heroku, Sublime, Emacs, VS Code

Databases: MongoDB

PROJECTS

SIMPLE TEXT EDITOR **08/2019**
- ~1000 lines of C
- Incremental searching and limited syntax highlighting
- Uses VT100 escape sequences, but actively switching to ncurses library

VIRTUAL MACHINE IN C, (PLEASE CONTACT FOR PRIVATE REPO) **11/2017**
- VM with 8 registers and 32 bit segmented memory
- Reads Universal Machine Instruction set (13 instruction set similar to x86 Assembly)
- Optimized with profiling and refactoring

PERSONAL

- English (Native), French (Intermediate)
- Top 12% of solvers on ProjectEuler
- *National Merit Scholar*, National Merit Scholarship Corporation (Class of 2016)