Eli Maynard

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Education

Lewis and Clark College
Portland, Oregon
Graduating 2023

- Intended double-major Math and Computer Science
- 3.975 GPA so far

Montgomery Blair
Silver Spring, Maryland
Graduated June 2019

- Math, Science, and Computer Science Magnet Program
- 3.59/4 unweighted GPA; 4.29/5 weighted GPA
- *Relevant coursework*: Statistics, Lisp/AI, Algorithms and Data Structures, Analysis of Algorithms, Graphics, Calculus I, II, & III, Complex Analysis, Logic, Discrete Math, some Differential Equations

Technical Skills

- **Languages:** Python, Javascript, C, Haskell, Nim, LaTeX, HTML, CSS | Familiar with Lisp, Elm
- **Software:** Git, Linux, Kakoune, Vim, Excel, IntelliJ Editors

Professional work

University of Maryland
Intern
June 2018 - November 2019

- Working under Prof. Gasarch in the Department of Mathematics
- Researched approximating the Van der Waerden function (from Ramsey Theory) with Nim, Python, and pencil-and-paper mathematics.

The Nora School
Commission
2016 - 2017

- Parent-teacher conference webapp in Python Flask/Jinja, HTML, CSS, and JS and deployed to an AWS server
- Used by 50+ parents and 15+ teachers
- Included database management and UI/UX design

Papers

- **Synthetic Compression (2019, in progress)**: Reverse-engineering compression algorithms to have desired behavior. Draft available online at http://maynards.site/assets/papers/synthetic-compression/synth.pdf.

Personal Projects

Fitch-style proof assistant
Javascript/HTML/CSS
2018

- A webapp to verify/refute the validity of a Fitch-style proof; as the user types propositions, provides justification or highlights invalid lines
- Available online at http://maynards.site/items/fitch; source on Github

Lilt
Nim
2018

- Context-free parser generator with a Backus-Naur-like specification.
- Emphasis on simplicity and flexibility.
- Available through Nim's package manager; source on Github

- **Unplate (2020, in progress):** Minimal templating engine via abuse of reflection to emulate reader macros
- **LaTeX Macros (2018):** Chrome extension for conveniently inputting math symbols as UTF-8, and more
- **Snake (2017):** "Snake" in Python with my own genetic algorithm (no AI libraries!) that learned to play
- **Productivity (2017):** JavaScript Chrome extension to block websites
- **Predicates (2017):** Python library for imposing arbitrary runtime restrictions on functions
- **Photolio (2016):** Website with Python Flask/Jinja, JS, HTML, and CSS to showcase a photographer's work

Honors & Awards

- Montgomery Blair High School Honor Roll
- Won the "Jankiest Quick Fix" award at Montgomery Blair High School's local hack day 2017
- Exploravision Honorable Mention (top 10% of submissions) 2018