

KEVIN STEWART-MERCURIO

SOFTWARE DEVELOPER

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EDUCATION

Swarthmore College, Swarthmore, PA

Sep 2018 - May 2022

Bachelor of Arts, Double Major in Computer Science and Mathematics

Relevant Coursework: Data Structures and Algorithms, Software Engineering, Theory of Computation
Algorithms, Compilers, Natural Language Processing

EXPERIENCE

Freelance Developer, ns.studio

Mar 2023

- Authored a detailed onboarding guide, resulting in enhanced user understanding
- Designed a responsive front-end interface, positively impacting site navigation and user interactions

Mathematics Research Assistant, Swarthmore College

Jun 2021 - Aug 2021

- Engaged in efforts to conceptualize and extend the card game SET into higher dimensions
- Analyzed the algebraic structures and combinatorics embedded within the card game SET

PROJECTS

YouDoSudoku API, *Sudoku REST API*

🔗 <https://youdosudoku.com> **Nov 2023**

- Engineered a REST API, granting developers seamless access to over 200 billion Sudoku puzzles
- Enhanced data transfer efficiency by reducing JSON response size by 80%, outperforming existing solutions and maintaining the integrity of transmitted information.

Utilized: Next.js, Tailwind CSS, TypeScript, Redux, Git, Vercel

FriendsPSL, *community tool*

🔗 <https://friendpsl.com> **Jun 2023**

- Developed a dedicated tool empowering over 2000 participants in an Ultimate Frisbee league to effortlessly coordinate their game schedules alongside those of their friends.
- Demonstrated understanding of user requirements by identifying and resolving scheduling challenges

Utilized: Next.js, Tailwind CSS, TypeScript, Redux, Git, Vercel

enigmachat.io, *encrypted chat service*

🔗 <https://enigmachat.io> **Jan 2023**

- Leveraged WebSocket technology to facilitate instant messaging, delivering a real-time chat experience
- Employed the Enigma machine's encryption algorithm to execute encryption and decryption processes

Utilized: MongoDB, Express, React, Node.js, JavaScript, Git, Heroku

Bird Compiler, *Compilers coursework*

Feb 2022 - May 2022

- Engineered a compiler to achieve specified functionality, contributing to the language's capabilities
- Systematically addressed and resolved issues in Intel x86 Assembly code through routine debugging practices

Utilized: OCaml, Intel x86 Assembly, C, GDB, Git

Word Embedding Bias Evaluation, *NLP coursework*

Sep 2020 - Dec 2020

- Conducted an in-depth analysis of the RAN-Debiasing algorithm, specifically crafted to assess gender bias within word embeddings
- Evaluated the efficiency of a comparable approach in measuring racial and religious biases, contributing to the exploration of bias detection methods

Utilized: Python, Git

SKILLS

Technical: HTML, CSS, JavaScript, TypeScript, React, Next.js, Tailwind CSS, MongoDB, Redux, Python
C, C++, Git, OCaml, \LaTeX