# Sam Stewart

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| [sams@umn.edu](mailto:sams@umn.edu) • 503-877-2851 • [github.com/samstewart](https://github.com/samstewart) • Minneapolis, MN • LinkedIn |

## Education

2020

**PhD Candidate, Math, University of Minnesota** (Minneapolis, MN)

2017

**MS, Math, University of Minnesota** (Minneapolis, MN)

2011-2015

**BS, Math, Lewis & Clark College** (Portland, OR)

2014

**Budapest Semesters in Mathematics** (Budapest, Hungary)

* Studied Hungarian and interacted with local culture via language exchange program

## Work Experience

2017

**Tractors for Africa (Burkina Faso)**

* Acted as language and cultural liaison between US team and local team in a rural town in Burkina Faso
* Wrote weekly reports for US team
* Managed finances of local team and coordinated funds with US team

2013-2015

**Contract Developer, Upsight Analytics (Portland, OR)**

* Wrote Android advertising framework that served millions of ads per month
* Built an automated UI testing framework
* Mentored junior developers
* Patched high-pressure bugs in both iPhone and Android SDKs

2011

**iPhone Development Intern, SeatMe (San Francisco, CA)**

* Wrote core UI components for main application now used by hundreds of restaurants
* Startup was acquired by Yelp in ?? for ?? million.

## Research Experience

2015-2020

**Graduate Research Assistant (Minneapolis, MN)**

* **PhD Project**: Designing fast algorithm for simulating hundreds of agents in a crowd model inspired by fluid dynamics.
* **Masters Project**: Implemented numerical method in Matlab to study solutions for a fluid model and published results in top journal

2012-2015

**Summer Undergraduate Research Experiences (Portland, OR)**

* **Summer 2014**: Coded a custom PDE solver in Python / NumPy for a nonlinear wave equation to find numerical evidence of blowup
* **Summer 2013**: Developed custom library in Mathematica to search through thousands of graphs to help prove a statistical classification condition.
* **Summer 2012**: Wrote statistical compression algorithm for a Computer Go player that significantly reduced memory usage. Built and deployed a parallelized Computer Go player across a cluster of five machines

## Skills

* **Programming:** Linux, Git, Python, C/C++, Mathematica, Matlab, R, Julia, Java, Vim, LaTeX
* **Math:** PDEs, convex optimization, numerical PDE
* **Software:** Excel, Word, PowerPoint, Blender3D
* **Languages:** French (professional working proficiency)