

Dylan Thinnes

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<https://dylant.org>

Education

University of Edinburgh, BSc in Comp. Science & Artificial Intelligence 2017 - 2021

Functional Programming (Haskell) 1st Year Semester 1, 98% Overall Grade
Achieved Firsts in Computer Systems, Functional Programming, Object-Oriented Programming, Natural Language Processing, Algorithms, Data Structures, and Learning, Software Engineering, Data and Analysis, Reasoning and Agents

Professional Experience

Formal Verification

Arm Ltd.

Tcl, Python, SystemVerilog

June 2019 - Sept 2019

- Ported CPU verification workflows and behaviours for one EDA tool to a competing tool in order to eliminate vendor lock-in.
- Determined ideal property result names to guide schema changes in automated tests.

Junior Developer

Homepointr CIC

React, JavaScript (ES6+), Google Firebase

Sept 2018 - June 2019

- Head developer for company, focused on React / Redux and Firebase back-end.
- Implemented new messaging, dashboard, stakeholder connectivity features.
- Automated email sending to increase user retention at early signup stages.
- Wrote and delivered pitches for two Scottish EDGE competitions.

Programming Club Demonstrator

University of Edinburgh

Java, Raspberry Pi

Sept 2018 - April 2019

- Demonstrator for university's programming club to prepare students for coding.
- Taught general programming skills, OOP concepts, robotics to fellow students.
- Tracked and followed student progress in order to individually tailor learning process.

Front-End Development Intern

Traveltek Ltd.

JavaScript (ES5), MochaJS, Mozilla Nunjucks

June 2018 - Sept 2018

- Conceptualized, developed new >1000 line JS component using TDD principles.
- Ensured clients' sites Internet Explorer 11 and 10 compatibility.
- Worked in a team to develop, bug-fix, and ship a product line for a major contract.

Programming Experience

Languages

Advanced

Haskell

JavaScript (ES6+, ES5/IE-compatible, NodeJS)

Bash, Tcl

HTML5 (XML, XSLT), **CSS3** (Bootstrap, SCSS, LESS), **SVG**

Intermediate

Python, SQL (MySQL, SQLite)

Ruby / Ruby on Rails

Programming Projects

SolSys - A Math-Oriented Art Puzzle

JavaScript, NodeJS, AWS, Haskell (FFI)

- A three-year math-art project which converts integers to solar systems.
- Uses serverless computing, front-end 3D graphics, and SVG art.
- Developed as head of a team of three.

Available at <https://github.com/dylan-thinnes/solsys>, <https://solsys.xyz>

Me Four

Bash

- My personal site and blog, lists projects, articles, and contact info.
- Built using a collection of bash scripts & shell utilities.
- Completely NoJS compatible & very small footprint.

Available at <https://github.com/dylan-thinnes/me-four>, <https://dylant.org>

Conway-Wechsler / MathExpr

Haskell

- Converts large numbers into their pronounceable form, e.g. $6 \cdot 10^{33}$ = six undecillion.
- Mathematical expression parser allows for entry of arbitrary integral math.
- Option parsing & error handling mechanism for easy extension.

Available at <https://github.com/dylan-thinnes/conway-wechsler>

asrp-classifier

Python (Scipy, Numpy)

- Image classifier to calculate probabilities of unfair dice by classifying different faces.
- Uses numpy & scipy machinery to efficiently determine landed face from photo.
- Part of larger robotics project to throw dice & classify automatically.

Available at <https://github.com/dylan-thinnes/asrp-classifier>

More Projects at <https://dylant.org/projects>

Public Speaking / Presentations

Code Obfuscation

2019

Talk, 30 minutes

Spoke for ~30 minutes (100 slides) on strategies for Code Obfuscation to audience of 20-30.

One of three talks at CompSoc's Student Tech Meetup.

Scottish Edge Finalists' Presentation

2018

Presentation, 3 minutes

Had 3 minutes (timed) to present company's case for Scottish Edge funding out of 15 finalists.

Wrote, presented speech to 6 panelists, one of which has now become a pilot participant.

Additional Skills

Native Fluency in **English**, Professional Fluency in **French**, Limited Fluency in **German**
Black Belt in Aikido