David Rusu

davidrusu.me@gmail.com ✉

davidrusu.github.io 🏠

github.com/davidrusu <>

HI! I make computers compute

Professional Experience

FULL STACK DEVELOPER (CO-OP)   SUMMER 2016
500px - Toronto, Canada

A community and marketplace with millions of amazing photographers

- Developed Splash, a sketch based image search engine
- Worked with the 500px Innovation Team to build infrastructure to support a new photo recommendation engine

Tech: Rails, Ruby, Go, Python, Redis, Marionette, CoffeeScript

SOFTWARE ARCHITECT (CO-OP)   SUMMER 2015
North60 Tech - Mississauga, Canada

An end-to-end solution to simplify healthcare for patients, doctors and pharmacists

- Built out application backend including integrations with existing health care systems
- Led team of developers across Android, iOS and Web

Tech: Docker, Postgres, Python, Flask, Azure, ReactJS, Flux

RESEARCH ASSISTANT   SUMMER 2014
Wilfrid Laurier University - Waterloo, Canada

Researched a special case of the n-body problem culminating in a paper

- Used various numerical methods to analyze differential equations

Tech: Python, Sage, Numpy, Scipy IPython, Latex

Publications

SIAM JOURNAL ON APPLIED DYNAMICAL SYSTEMS

- Bifurcations of Central Configurations in the Four-Body Problem with Some Equal Masses

Awards

- 2016: #1 Student Oral Presentation at diTHINK conference
- 2015: Top 6 Finalist at Hack Western 2
- 2014: 3rd place at Communitech 24h Startup
- 2013: WLU Deans Honour Roll

Education

WILFRID LAURIER UNIVERSITY - WATERLOO, ON
Candidate for BSc. Honours Computer Science

Highlighted Projects

SPLASH SEARCH
Search for images by sketching

- Reached #2 on Reddit and survived!

Tech: Go, Python, Javascript

MC-AIXI MPI
Parallel artificial general intelligence

- #1 student presentation at diTHINK
- Programmed for the Sharcnet supercomputer

Tech: C, MPI

ROOSTER ENGINE
Physics engine featuring continuous collision detection

- Large performance gains from advanced data structures and algorithms
- Unique guarantee of no missed collisions

Tech: Java, OpenGL

TYPE THE WEB
Firefox add-on to improve typing skill

- Over 4,600 downloads
- 5 star rating

Tech: Javascript, RamdaJS

OFF THE GRID
Real time offline peer-to-peer whiteboard

- Awarded top 6 finish at Hack Western 2
- Achieved using peer-to-peer networks, no internet required!

Tech: iOS, Swift

LAURIER COURSE GRAPH
Dependency graph of WLU courses

- Spring based graph layout

Tech: Python, Processing