Ian Johnson

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Summary

I am a quick and versatile learner, adaptable to a variety of challenging situations and tasks. I have a strong background in mathematics, as well as experience in computer programming.

Education

University of Virginia **May 2017**
B.A. in Mathematics (advanced track) and Physics *Overall G.P.A.: 3.96*

- **Awards and designations**
  - Echols Scholar
  - Edwin E. Floyd Prize in Mathematics (2017)
  - Intermediate Honors (2016)
  - Dean's List (Spring 2015, Spring 2016, Fall 2016)

Experience

Volunteer Tutor **September 2017–Present**
FACETS *Centreville, VA*

- Teach computer, math and English skills to adults and children in a low-income community.
- Provide proactive technical support to community center.

Undergraduate Physics Researcher **April 2015–September 2017**
UVa Solid Polarized Target Group *Charlottesville, VA*

- Develop simulations and mathematical models from systems of differential equations and real data.
- Design and implement software to assist in lab tasks.

Undergraduate Mathematics Researcher **May 2016–July 2017**
University of Virginia *Charlottesville, VA*

- Apply individual study of new material to research efforts.
- Collaborate with research adviser to investigate novel concepts.

Vice President & Secretary **May 2015–May 2017**
Kinetic Sound *Charlottesville, VA*

- Co-founded successful student organization.
- Coordinate logistics of large-scale events with over one hundred attendees.

Skills

Computer proficiency

- Experienced with Windows and GNU/Linux systems (day-to-day usage and basic administration)
- Proficient in Microsoft Office (Word, Powerpoint, Excel) and equivalent products

Programming

- Languages: C, Rust, LabVIEW, C++
- Also have experience with HTML and CSS
- GitHub: https://github.com/ianprime0509
- Familiar with common development tools, including Git
- Selection of projects:
  - A controller for a stepper motor, written in LabVIEW (https://github.com/ptgroup/stepper-motor-controller)
  - A Chip-8 emulator, written in C (https://github.com/ianprime0509/chip8)

Publications and presentations

- Spin nilHecke algebras of classical type (https://arxiv.org/abs/1706.06240)
- Chain Posets (https://arxiv.org/abs/1802.05813)
- Automated Microwave Frequency Control in Dynamic Nuclear Polarization Experiments (http://meetings.aps.org/link/BAPS.2016.APR.K10.2)