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 a variety of computer-related skills to adults.
- Assist with children's homework and after-school activities.
- Provide proactive technical support to community center.

Undergraduate Physics Researcher **April 2015–September 2017**

UVa Solid Polarized Target Group *Charlottesville, VA*

- Develop mathematical models from systems of differential equations.
- Create simulations based on experimental data.
- Design algorithms and software to automate experimental process.

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.
- Participate in and contribute to weekly planning meetings.

Skills

Computer proficiency

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

Programming

- Languages: C, Rust, LabVIEW, C++
- 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)

French
- Upper intermediate reading and writing

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)