Charles Stahl

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Princeton NJ, 08544		Shorewood, WI 53211

EDUCATION

Cambridge University, Cambridge, UK   June 2019
    Part III of Math Tripos
    Coursework includes: Theories of Quantum Matter, String Theory, Supersymmetry

Princeton University, Princeton, NJ   June 2018
    A.B. Degree in Physics, with High Honors   GPA: 3.86
    Thesis: Operator and Entanglement Dynamics in Asymmetric Quantum Systems
    Certificates: Applications of Computing, Applied and Computational Mathematics

HONORS

Allen G. Shenstone Prize in Physics   June 2017 and June 2018
    Princeton University award for excellence in course work and promise in independent research.

Manfred Pyka Memorial Prize in Physics   June 2016
    Princeton University award for excellence in course work and promise in independent research.

RESEARCH EXPERIENCE

Senior Thesis, Physics Department, Princeton University   2017-2018
    Studied asymmetric information velocities in various quantum systems. Used Python to numerically
    simulate time-independent Hamiltonian systems. Used analytic and numeric models to study
    quantum circuits.

Research Assistant, Astrophysics Department, Princeton University   Summer 2017
    Worked with Professor James Stone on Athena++, a hydrodynamics simulation code. Extended
    Athena++ using C++ to include thermal diffusion. Tested the code and the extension using analysis
    of the Kelvin-Helmholtz instability.

Junior Independent Work, Physics Department, Princeton University   Spring 2017
    Worked with Professor Herman Verlinde on the spectrum of the SYK model, a small quantum model.
    Performed matrix calculations using Python to find ground states and entropy of the model.

Junior Independent Work, Physics Department, Princeton University   Fall 2016
    Worked with Professor Suzanne Staggs on methods of determining sources of B-mode polarization in
    the Cosmic Microwave Background. Wrote code in Python to analyze data generated algorithmically
    with the scientific computing package CAMB. Differentiated between magnetic and other sources.

Research Assistant, Data-Intensive Computing REU, Clemson University   Summer 2016
    National Science Foundation funded program for undergraduates in data-intensive computing.
    Worked in the PERSIST lab, focusing on embedded systems and small computational devices.
    Extended a Java-based hardware simulator to make use of recorded natural conditions.

SKILLS

    Computer: Java, C, Mathematica, Matlab, LaTeX, Python
    Language: Working proficiency in writing and speaking Spanish

ACTIVITIES

Tutor for Princeton Sophomore-level Physics and Computer Science courses   Fall 2017
Princeton Varsity Men's Cross Country, Indoor and Outdoor Track teams, Member   Fall 2014-Fall 2016