Brayden Bekker

Curriculum Vitae

✆ *(801) 931-7583*
✉ *brayden.bekker@byu.edu*

Education

2016–present **Brigham Young University**, *BS Department of Physics and Astronomy*.

Scholastic and Curricular Achievements

☐ Nyshadham, C., Rupp, M., Bekker, B., Shapeev, A. V., Mueller, T., Rosenbrock, C. W., ... Hart, G. L. (2019). Machine-learned multi-system surrogate models for materials prediction. npj Computational Materials, 5(1), 1-6.

☐ Completed the computational materials physics two-week "Hands on DFT" workshop in Barcelona, Spain

☐ Bekker, B., Oliver, H., Nyshadham, C., Shapeev, A., Hart, G. (2019). Exploring Materials Space with Machine Learning. In APS Meeting Abstracts.

Employment

2017-Present Research Assistant Physics Department, BYU.
☐ Using Machine Learning to discover new Superalloys with the materials simulation group (MSG) at BYU
☐ Comparing Machine Learning descriptors of local atomic environments with MSG
Present Grader for Modern Physics
2018 Junior Engineer at TRACY
☐ Developed python code to automate defects calculations in atomic structures in the Vienna Ab Initio Package (VASP) for Density Functional Theory (DFT) calculations.
2016 Research Assistant Geography Department.
☐ Studied the impact of chemical absorption of different tree species on re purposing closed chemical plant land.

Technical Skills

Programming PYTHON, JULIA, C++, BASH
Software VASP, SLURM, ATOM, LATEX

Coursework

Core Courses Solid State Physics, Intro to Mathematical Physics, Calculus 1-3, Ordinary Differential Equations, Linear Algebra, Thermal Physics

Languages

English Fluent
Spanish Fluent