FINN BERGQUIST

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EDUCATION

Bowdoin College, Brunswick, ME

Candidate for Bachelor of Arts in **Computer Science** and **Physics (GPA: 3.90)** **May 2023**

Relevant Coursework: Data Structures, Algorithms, Principles of Programming Languages, Foundations of Computer Systems, Database Design, Artificial Intelligence, Financial Machine Learning, Computational Creativity, Cognitive Architecture

Honors: Sarah and James Bowdoin Scholar, 2018-2019, 2020-2021 (Deans List)

TECHNICAL SKILLS

Python (Flask), JavaScript (ReactJS), C, PostgresSQL, HTML5/CSS, PostgresSQL, AWS, Github

PROJECTS

Financial Machine Learning Research |*scikit-learn, python* **Spring 2022**

- Engineered Scikit-Learn Neural Network to trade stocks in technical finance simulation, using last fifty years of Yahoo stock data

Computational Physics Research | *numpy, pandas, python* **Fall 2022**

- Simulated fluid dynamics, properties of magnetic materials, and traffic flow with Python experiments on large data sets

Co-Inventor and Head Engineer of Music EdTech Product, GrooveBlocks | *c++, python, arduino, java* **Summer 2020**

- Assessed user needs and translated into product requirements to inform product hardware and software design
- Wired circuitry and programmed Arduino/Teensy microcontrollers in C; prototyped toy to reimagine music education
- Lead software team to design backend architecture, integrate application with hardware, and conduct smartphone testing

Web Dev Team Member: Accessibility Project for People with Disabilities, Art Museum | *javascript, reactjs, sql* **Spring 2020**

- Collaborated with 4-member team to build interactive museum website with administrative access to art database API
- Communicated with separate backend database team to coordinate SQL Database requirements and integrations
- Self-directed learning of ReactJS to build UX/UI compliant with Americans with Disabilities Act

WORK EXPERIENCE

Software Engineering Intern, Marketron, Denver CO **May 2022-Present**

- Conceptualized and built features for AI recommendation system for ad-campaign proposals, used **Python** and **JavaScript**
- Pulled training data from **AWS** S3 data lakes; fit models with **scikit-learn** and **AWS AI** tools
- Create rules-based agent for data holes; internal facing ReactJS frontend, Python Flask backend, and PostgresSQL database
- Acquired industry standard engineering principles with daily standups, an **agile** development team, and two-week sprints

Computer Science Grader: Data Structures; Bowdoin College, Brunswick, ME **September 2020-August 2022**

- Nominated by past professor, based on understanding of the **Data Structures, Algorithms, and Object-Oriented Programming**
- Automated grading for student submissions with **Python** scripting code; provided feedback for code optimization

Computer Music Technology Fellow, Bowdoin College Summer Research Fellowship, Brunswick, ME **May 2020-July 2020**

- Wrote successful proposal, awarded grant for research in electronic music, hardware, and software design
- Designed, developed, and tested a four-channel musical looping station, adopting meaningful insights from user feedback
- Delivered final product, running **Python** on Raspberry Pi, with audio amplification, digital-analog conversion, and multi-threading

Virtual Reality (VR) Lab Assistant, Bowdoin College, Brunswick **January 2020 - May 2020**

- Consulted on yearlong project, quickly learned Unity to contribute to 3D simulated tour of Kent Island, NB, Canada

Teacher Assistant for Intro Physics II: The Interactions of Matter and Radiation; Bowdoin College **September 2019- September 2022**

- Selected for competitive position based on mastery of class material in classical and quantum mechanics
- Communicated weekly constructive feedback on problem sets to 14 students thereby increasing their academic success in class

INTERESTS

Music – Guitar player for rock band, Non-Prophets, and jazz group, Apres Jazz Trio, gigging locally at restaurants and breweries

Sculpture – Apply math and fractal ideas and concepts into 3-D physical art mediums, working in clay, wood, and plaster