Heanan Bird

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Education

University of British Columbia

August 2020 – Present (Expected May 2025)

Bachelor of Applied Science in Manufacturing Engineering | Minor in Computer Science

GPA 4.0

Technical University of Denmark | Copenhagen, Denmark

December 2022 - May 2023

Specialization in Machine Learning, Data Mining, and Analytics

Skills

Languages: Python | Java | SQL | HTML/CSS | Javascript

Libraries/Frameworks: Numpy | Pandas | Matplotlib | Plotly | Scikit-learn | SciPy | JavaFX | Flask | React Tools: Git | Docker | Jupyter Notebook | Linux (Bash) | VS Code | Microsoft SQL | Microsoft Office Suite | Power BI Relevant Coursework: Data Structures & Algorithms | Software Engineering Principles | Machine Learning & Data Mining | Object-Oriented Programming | Predictive Analytics | Internet of Things | Industrial Control Systems

Experience

R&D Data Analyst (Intern)

General Motors - Battery Module Assembly & Execution | Warren, MI

April 2024 - Present

General Motors Battery Module team designs the production process for the next generation of electric vehicles. As an Analyst, I developed, designed, and organized experiments to study material capabilities and analyzed data

- Organized \$32,000 of equipment, \$9,000 of materials, and 4 procedures for material property experiments and completed presentation and analysis in Excel
- Saved \$575,000 in battery module production cost by determining optimized method of module treatment through surface regression fitting in Python and DOE development

Analytics Engineer (Intern)

Seeq Corp - Advanced Analytics | Seattle, WA

June 2023 - August 2023

Seeq is a SAAS analytics and machine learning company for industrial partners. As an Analytics Engineer, I interfaced with clients and customized the Seeq systems to match their needs, tracking changes with Git & Jira

- Realized \$4,000,000 of gains for Owens Corning production by designing analytics software to monitor batches with a Vuetify UI and apply calculations to 2 TB of data with Python
- Developed UI/UX and machine learning software for a diverse set of manufacturing needs using Scikit-learn, NumPy, pandas, and Viola

Manufacturing Engineer (Co-Op)

Raytheon Technologies - Collins Aerospace | Rockford, IL

May 2022 - December 2022

Collins Aerospace manufactures generators for commercial partners such as Boeing & Airbus. As an Engineer, I optimized human-technology interfaces to decrease costs and streamline production.

- Implemented \$10,000 cost reduction annually by developing in-house testing methods for 3D printed filaments, eliminating the need for 3rd party services
- Decreased Boeing generator cleaning cycle time by 50% or 27 minutes, by analyzing oil residue data for trends and implementing cleaning procedure based on Lean methodology

Residence Advisor/Innovation & Technology Coordinator

University of British Columbia | Kelowna, BC

August 2021 – Present

In this role, I organized and managed a residence building including coordinating programs, managing inter-student conflicts, and leading meetings.

- Executed bi-weekly events for 215+ undergraduates around professional development in aerospace, machine learning, and software engineering
- Led, trained, and mentored a team of 6 Residence Advisors to manage a dorm of 760 students

Projects

Software Engineering Competitions | Python | Java | HTML | CSS | Jupyter Notebook

2021-2024

- BC Hacks: Won 2nd place & \$1200 by creating a responsive website for college dorm placement
- Okanagan SWE: Won 2nd against 200 students by developing a bomb-sweeping simulation in Python
- HackAttack: Won 1st place and \$600 in prize money by developing an e-learning platform with React