Ariel Seebarran

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SKILLS

Languages, Packages & Tools Python (Pandas, PySpark, Matplotlib, Seaborn), Machine learning (Scikit-Learn, MLlib), SQL, Databricks, Azure DevOps, Apache Airflow, Git, MATLAB

Knowledge & Processes Equity & Debt Capital Markets, M&A, Agile, Regression & classification ML, Big Data

EXPERIENCE

ION Group – *Lead ECM Data Scientist, Product Analyst* Sept. 2019 – Present

Data Science: Built and tested ML Models using SKLearn and SparkML to predict capital markets activity.

- Led product demos and training sessions for Legal and Investment Banking clients. Assisted Product and Sales teams with client pitches, bringing in >$300k in new ACV.
- Single-handedly migrated the IPO model into a new UI, model-building framework, and product.
- Changed the feature generation workflow to run independently by re-engineering Databricks notebooks, reconfiguring pipelines in Azure DevOps, and creating a new DAG in Apache Airflow – leading to a 7x reduction in stale data time.
- Designed and managed 4 new dashboards which served as the front end for ML models.
- Engineered 200+ features for use in Equity (IPO, Follow-ons), Debt, and Leveraged Capital Markets ML models, improving model hit rates by up to 30%.
- Created an EDA template to explore trends in features to answer data questions from by senior management and for use by team members to evaluate promising inputs to models.

Anvil Product Management: Developed acceptance criteria for 400+ captured use cases. Summarized use cases into a set of workflows and then mapped the workflows to specific systems and screens in the product.

- Generated data analytics dashboards to inform senior management regarding product usage and sales info.
- Conducted market research, created implementation policy and go-to market strategy for a new product.

Association of Spaceflight Professionals/UofT – *4th Year Capstone* Sept. 2018 – April 2019

- Consulted with Mechanical engineers, physicians, and industry experts to develop a Lower Body Negative Pressure suit to counteract the cephalic fluid shifts astronauts experience on the ISS during spaceflight.
- Designed a prototype suit and research poster that was presented at the NASA HRP conference in Jan. 2020.

Wyss Institute/Harvard Medical School – *Visiting Research Fellow* Sept. 2017 – August 2018

- Developed a human microfluidic chip model for testing various lung pathologies and therapeutics.
- Decreased image & data analysis time by 92% using MATLAB and ImageJ to automate processes.
- **Publication:** Li, J., Wen, A. M., Potla, R., Benshirim, E., Seebarran, A., . . . Ingber, D. E. (2019). AAV-mediated gene therapy targeting TRPV4 mechanotransduction for inhibition of pulmonary vascular leakage. APL Bioengineering, 3(4), 046103. doi:10.1063/1.5122967

Flexible Energy and Electronics Lab – *Engineering Research Internship* May – August 2016

- Converted waste biomass into porous nanocarbon materials for energy storage applications.
- Awarded a $6000 NSERC UofT Excellence award and placed 2nd at the UnERD research conference.

EDUCATION

University of Toronto Sept. 2015 – April 2019

- **BASc in Materials Engineering** with Honours; minors in Bioengineering & Eng Business; 3.8 cGPA

EXTRACURRICULARS

- **Engineers without Borders UofT** – Youth Development Co-Chair, **Enactus UofT** – YouElevate Project Manager, **MSE Student Association** social and comm. Director, **Blue Sky Solar Racing** team member.