Varunan Varathan

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EDUCATION AND ACHIEVEMENTS

McMaster University | Bachelor of Computer Engineering Candidate   Expected April 2024/2025
- Working towards a major in Engineering & Society with a minor in Business
- Sir Wilfrid Laurier Collegiate Institute - Honour Roll International Baccalaureate Programme Graduate
- Learning/Specializing in Programming, Digital Systems, Algorithms, Calculus, Circuitry & Engineering Principles
- Recognized at Rising Scholars of Canada – Received award for Academic Achievement at annual ceremony
- Amazon Web Services Cloud Practitioner | Science Fair Award Winner | MacChangers Solution Application Award

WORK EXPERIENCE

Software Developer | H.H. Angus & Associates Ltd.   May 2022 – Sept 2022
- Worked with colleagues in the digital services team in a dynamic environment to create technical solutions to healthcare and engineering applications by embracing cloud and web infrastructure and introducing software-based workflow improvements
- Led Project to transition from COTS & On-Premises Document Management Solutions to Cloud-Based In-House Software

  Key Accomplishments:
  - Created various programs in **Python**/**C#** for **Autodesk** Environments - reduced export & "clean-up" processes by 98%
  - Worked with various **AWS** Environments to create data analysis tools and explored upgrading on-premises infrastructure to cloud-based solutions to facilitate emerging **Machine-Learning** and **Relational Database** applications

Research Analyst and Advocate | Noolaham Foundation   July 2020 – March 2021
- Researched the impacts of the Sri Lankan Civil War on Literacy Rates with Jupyter Notebook (Python)/Webscraping Tools
- Converted PDF articles and primary sources using text recognition into spreadsheets and visualizations

  Key Accomplishments:
  - Presented the data to charity members to demonstrate the importance of the charity's ongoing efforts and studying the landscape of the local area in terms of demographics, income and education using analyzed data and research

EXTRA-CURRICULAR, PROJECTS AND AREAS OF INTEREST

Projects and Interests:
- **Peregrine Bot (Python, AWS)**: Discord Bot that verifies links for malware – designed a user interface in React and AWS
- **Python Interpreter (TS/JS)**: Website that runs Python in an online user interface using PyPy.js as a base
- **Autodesk Revit Extensions (Python/C#/WPF)**: Improved workflow by creating Autodesk Tasks with User Interfaces
- **Data Science Frameworks**: Learning about MatPlotLib, Tensor, Pandas, GeoPandas, Selenium, NumPY

MacChangers - Economic Growth, Environmental Sustainability, and Prosperity   Sept 2021 – Apr 2022
- Took leadership in teams of 4 developing solutions to economic and financial challenges in the Greater Hamilton Region
- Interviewed multiple local business owners regarding challenges they faced during the pandemic and how city policies could better reflect their interests to create a more well-rounded solution to the issue at hand

DeGroote Finance and Investment Council – Quant Analyst   Nov 2021 – Present
- Working in the Quant Team at DFIC in areas of Risk Management and Data Analysis to study market trends
- Using software tools like Python and QuantConnect to assess market trends and manage assets

SKILLS

Programming and Computing:
  Advanced in: Python + Pip/Libraries | | C/ C++ | JavaScript (HTML/CSS and Node) & TypeScript
  Fluent in: C# | MS Office & PowerBI | Quartus II/Verilog/Schematic

Leadership, Collaboration and Teamwork
- Played an important role in the Toastmaster's initiative at HH Angus to promote teamwork, collaboration and confidence

Engineering, Designing, and Prototyping

Figma | Google Suite | Autodesk Inventor & Revit | Jupyter Notebook |Visual Studio/VS Code | GitHub/Git | Notion
- University of Toronto – Da Vinci Engineering Enrichment Program: Recognized for creating a prototype solution for individuals facing mental health challenges using the Engineering Process, UI/UX design elements and software like Figma