PATRICK COPP

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SKILLS

Languages

· C#, C(ANSI & C99), Python, OracleSQL/ MySQL, VBA, Java, C++, JavaScript, HTML, Assembly, R

Tools/ Skills

· PL/SQL, Regex, AWS EC2/S3/Route 53/Lightsail, ETL, Git, Node.js, Bash, Microsoft Office

EDUCATION

University of Guelph September 2017 - April 2022

· Bachelor of Computing, Computer Science (Co-op) Minor in Business Economics
· Nominated for **Ian Pavlinic Memorial Award (Co-op Student of the Year)**
· Major GPA of **3.7**
· **Dean's Honour List** (average above 80%) achieved Fall 2018, Winter 2020 semester
· **Teaching Assistant** for CIS*2520 (Data Structures) in Fall 2020 semester

WORK EXPERIENCE

MANTECH Inc. May 2020 - August 2020
Control Systems Software Developer

· Created desktop **C#** application to automate reading, automating, and reporting water sensor results for hundreds of waste-water companies internationally
· Used **embedded C** firmware to improve time of calibration of PeCOD water sensor by up to **50%**
· Wrote hardware library for Chemical Oxygen Demand Sensor
· Wrote and reviewed **mathematical and statistic functions including Polynomial Least Squares, Gaussian Elimination, and Interpolation** for water sensor data
· Worked **hands-on with water sensor hardware** to improve calibration and analysis precision and accuracy, as well as hardware libraries and to link hardware with desktop applications

ERIS - Environmental Risk Information Services May 2019 - December 2019
Data Technician, Data Analyst

· Headed project for collection of more than 150 years of records for over **500,000 wells** using **Selenium, urllib3, and PL/SQL**
· Independently created, tested, and ran programs to capture data from 6 separate websites; collected more than **80GB** of City Directories (images, .pdf files) using **BeautifulSoup4** and urllib3
· Consulted on the development of an in-house implementation of **OCR machine learning** to read 10,000s of pages of City Directories
· Wrote queries and **PL/SQL** procedures to perform analysis, normalization, and **ETL** (Extract, Transform, Load) on dozens of publicly available datasets in a variety of different formats (.csv, shapefile, .xlsx, .pdf) in an Oracle environment
· Worked with ESRI software to geolocate U.S. addresses in a variety of formats and assess results; wrote **Regex** statements to clean Canadian addresses in preparation for geocoding

PROJECTS

patrickcopp.com March 2020

· Created a personal website to host links to my GitHub, LinkedIn, and Résumé
· Used **AWS's Route 53, S3, Cloudfront** as Content Delivery Network (CDN) for users
· Enabled **SSL certification for HTTPS** security