Kevin Tonkich

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EDUCATION

University of Alberta — **Edmonton, Alberta**

BSc with Specialization, Computer Science — *Expected Graduation, Apr. 2025*

- **Completed Coursework:** Algorithms, Foundations of Computation I & II, Formal Systems and Logic, Applied Statistics I & II, Practical Programming Methodology, File and Database Management, Intro to Software Engineering, Basics of Machine Learning, Search/Knowledge and Simulation
- **Planned Coursework:** Data Structures & Algorithms, Objects & Design, Computer Organization & Programming, Combinatorics, Machine Learning, Artificial Intelligence, Object-Oriented Programming, Statistics & Applications

EXPERIENCE

Seaspan — **Vancouver, Canada**

Data Management Intern - QC — *Jan. 2024 – Apr. 2024*

- Implemented robust **data management systems** and processes to streamline the organization and analysis of extensive engineer and inspection testing data for large ships in the Canadian Navy
- **Developed** and implemented **Python scripts** to **automate the retrieval and parsing** of 10,000+ engineer and inspection testing files stored on **SharePoint**, reducing manual efforts by over 70%
- Established **standardized protocols and documentation processes**, bridging workflow gaps between Engineering, Quality Control, and Acceptance departments
- Leveraged **SharePoint APIs and libraries** to connect to the platform, **parse and extract relevant data**, and apply filters based on specified criteria, enhancing the accuracy and relevance of the data retrieved

Mercedes-Benz AG — **Sindelfingen, Germany**

Software Engineering Intern — *June 2021 – Sept. 2021*

- Created a **file generator/parser using Python and Pandas** to filter and parse through AUTOSAR specific .arxml files to create and populate new **datasets** in Excel to exponentially speed up manual data filtering processes
- Utilized **C language** to engineer electric car battery cell voltage simulator software which connects to **FPGA Hardware**
- Configured **hardware development boards** to simulate battery voltages, worked with **AUTOSAR Layered Architecture**
- Followed the **Agile methodology** by using tools like **Jira and Git** to manage **collaborative development tasks,** and discussing progress/concerns in **daily stand-up meetings**

PROJECTS

NeuroScribe — **Edmonton, Canada**

natHACKS 2023 Hackathon Project – 1st Place Winner ($4000 prize)

- **Developed** "NeuroScribe", a tool that uses **OpenBCI hardware** to harness EEG brain waves for **hands-free mood and speech communication**
- Utilized two **machine learning models** that process brain waves to **detect mood** and imagined motor movements, alongside three **text prediction models** to predict user speech relative to detected mood
- Trained models in **Python** using **Deep Learning in Natural Language Processing through TensorFlow and Keras**

CaptureTheQR – multiplayer mobile application — **Edmonton, Canada**

University of Alberta CMPUT 301 Project (received 100% mark)

- Utilized **Android Studio (Java) to develop a mobile application** and **Firebase** for database management
- Integrated **ZXing Barcode scanning library** to scan and decode QR Codes using the device's camera
- Developed **front-end & back-end** of processing/adding QR Codes to the application
- Planned the layout of the app using **UML diagrams & storyboards,** maintained functionality and quality of code through **unit and integration testing**
- Used **GitHub** for version control and assigning **tickets through project board**

SKILLS

Software: Python, Java, JavaScript, C, Git, XML, Julia, SQL, MongoDB, Firebase, HTML, Android Studio

Techniques: Agile Programming, Scrum, Waterfall, Unit and Integration Testing, Layered Architecture, UML diagrams, ER and Relational Models, Dynamic Programming

Other: English (*fluent*), German (*fluent*), Russian (*fluent*), Japanese (*limited working proficiency*)