Mark Farinas

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Education

MacEwan University   *Jan 2024 – Present*
BSc in Computer Science - GPA: 3.6/4.0

- **Relevant Coursework:** Data Structures and Algorithms, Human-Computer Interaction, Coding in Python, Linear Algebra

University of Alberta   *Sept 2016 – April 2021*
BSc in Immunology and Infection

Projects

Phone Menu Transcriber   *Repo Link* ↗

- Developed a Python-based audio processing tool leveraging Whisper AI to convert automated phone prompts into clean, formatted menu options.
- Improved user experience by automating transcription and parsing of verbalized numbers and instructions.
- Tools: Python, Whisper AI

Calorie Tracker and Planner   *Repo Link* ↗

- Built a Python-based CLI application to log daily caloric intake and weight, estimate maintenance calories, and generate personalized nutrition plans for weight management
- Implemented custom data structures (linked lists), data validation, moving averages, and optimization (SciPy) to provide both algebraic and non-linear goal recommendations
- Added support for multiple file formats (CSV, JSON, TXT) and integrated a modular design for future scalability
- Tools: Python, SciPy, JSON and CSV file I/O, Object-Oriented programming, CLI design

Hack4Health Hackathon   *April 2025*

- Collaborated in a team to ideate innovative solutions in the health space using emerging technologies. The project presentation focused on utilizing biometrics, hardware, and AI to help deliver medication in a consistent and timely manner
- Tools Used: Figma

Professional Experience

Sales Associate *Popeye's Supplements*   *Edmonton, AB*
                                                                            July 2022 - Present

- Provide solution-based customer service focused on holistic health and wellness
- Advise clients on supplements that support athletic performance, fitness goals, and overall well-being
- Conduct in-store demos and community engagement initiatives to educate the public on effective, science-backed health solutions

Lab Specialist *Alberta Precision Labs*   *Edmonton, AB Dec 2022*
                                                                            – Dec 2023

- Conducted COVID-19 Research for surveillance in different Albertan cities and towns
- Utilized PCR (qPCR and dPCR) technology in COVID RNA Detection
- Prepared and conducted daily lab work: RNA Concentration, RNA Extraction, RT-PCR, digital PCR
- Data analysis with relevant software (AbsoluteQ and Microsoft Office)
- Assisted fellow researchers with reagent preparations and lab upkeep

Research Experience

Research Assistant *Shapiro Lab*   *Edmonton, AB April 2019 – September 2019*

- Conducted Type-1-Diabetes research to assess T-cell proliferation
- Overlooked animal subjects for behavioural and physical changes for multiple projects
- Prepared and conducted standard molecular biology assays: ELISA, flow cytometry, gel electrophoresis, and blotting
- Obtained and analyzed flow cytometry data using FlowJo

Team Member *iGEM Research Competition*   *Edmonton, AB April 2018 – Nov 2018*

- Conducted anti-fungal compound research in bees
- Handled live bees for behaviour monitoring and gut content analysis
- Collaborated with students to define project outline, timeline, execution, funding, and ethics
- Assisted the team to prepare for a live presentation of the project on an international stage

Research Assistant *Bayne Lab*   *Edmonton, AB Oct 2017- Jan 2018*

- Conducted ecology research to assess the reliability of bio-acoustics software
- Prepared bio-acoustic data for analysis by gating frequencies

Publications and Presentations

Publication: Jhajj, G., Farinas, M. Current Methods and Future Research in the Diagnosis of Alzhemiers Disease . 2019. CUSJ. 2019; In Press

Presentation: Lee, J., Jhajj, G., Farinas, M., Solez, K. Wnt4 as a Novel Biomarker for the Early Detection of Acute Kidney Injury.Presented at: Festival of Undergraduate Research and Creative Activities 2019; 2019 March 11-14; Edmonton, AB

Skills

Languages: Python, JavaScript, C

Programming Skills: Version Control (Git / Github), Wireframe (Figma), React, Object-Oriented Programming, Unit Testing

Laboratory Skills: Digital PCR, RT-PCR, Gel Electrophoresis, Haemocytometry, Cell Cultures, Animal Handling, Flow Cytometry, ELISA

Soft Skills: Problem Solving, Collaboration and Communication, Adaptability and Willingness to Learn