Sepehr Behroozi Esfahani

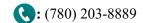📞: (780) 203-8889   ✉: sepehrbehroozi@gmail.com   in: sepehrbehroozi   ⬡: sepehrbehroozi

Education and Achievements

University of Alberta - Bachelor of Science, Specialization in Computing Science   09/2021 – 06/2025

- Alexander Rutherford Scholarship – 09/2021
- *Software Process and Client Management Hackathon* Winner – 09/2024

Experience

Business Support Administrator - *NWR*   05/2025 – 08/2025

- Maintain and update internal company databases and records to ensure data accuracy and accessibility
- Track and follow up on action items and deliverables discussed in meetings to ensure a timely completion
- Prepare and format business documents, reports, and presentations for management and operational teams

Research Assistant – *University of Alberta (Greiner Lab)*   09/2024 – Present

- Develop machine learning models for cognitive science research under Professor Greiner's supervision
- Contribute to the ICASSP 2025 SPGC Challenge using semantic, phonemic, and demographic data
- Assist in developing Vision-Language Models for ECG data in collaboration with Alberta Health Services

Software Engineer Intern - *NotJustYou*   09/2024 – 1/2025

- Developed Medical Wallet and health journaling features for a chronic illness management app called Oxygen
- Integrated real-time AI support to simplify complex medical information or inquiries for users
- Designed a calming and accessible interface tailored for medical settings to promote ease and mental well-being

Web Developer - *Student Team for Alberta Rocketry Research (STARR)*   09/2023 – 12/2024

- Develop and maintain the front and back-end of the STARR website using React and NodeJS
- Implement SQL solutions to manage and handle website inquiries efficiently
- Utilize GitHub as the primary version control system to facilitate seamless collaboration

Projects

ICASSP 2025 SPGC Challenge: Process | Python, NumPy, Scikit-Learn, Seaborn, NLTK, WordNet   12/2024
- Supervised by Dr. Russell Greiner and Dr. Eleni Stroulia in this research project for cognitive science
- Developed logistic regression models to predict patient outcomes using semantic, phonemic, age, and gender data
- Built multilayered linear regression models to predict imputed MMSE scores using KNN and MF methods

Data Cleaning and Transformation | Natural Language Processing, Python, Regular Expressions   09/2024
- Utilized regular expressions to clean and transform CHILDES transcripts
- Removed headers, speaker tags, and converted text to ARPAbet phonemes
- Processed the cleaned data for NLP tasks, including building n-gram models for linguistic analysis

Relay | Python, Django, PostgreSQL, REST API, ActivityPub, HTML/CSS, JavaScript   04/2025
- Developed a decentralized social networking platform, enabling cross-node communication via a RESTful API
- Implemented an inbox-based distribution system for posts, comments, and likes between federated servers
- Collaborated with 5 teammates using GitHub in an Agile development process

Technical Skills

Languages: C/C++, CSS, HTML/HTML5, Java, JavaScript, Python, SQL, TypeScript
Frameworks: Django, Next.js, Node.js, React Native, React.js, Tailwind
Developer Tools: Android Studio, Cybera, Figma, Firebase, GitHub, MongoDB, MySQL, Putty, Vim, VSCode
Libraries: SciPy, Matplotlib, NumPy, Pandas, Subprocess, PyTorch, Scikit-Learn, NLTK, WordNet, Seaborn, TensorFlow