Jeremy Pierce-Lord

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EDUCATION

Carleton University **Ottawa, ON**
Bachelor of Computer Science, Minor in Psychology, *September 2019 – December 2023*

- **Awards:** Dean's Honor List, 3.7 GPA, Admitted with $12000 Entrance Scholarship.

Strathcona-Tweedsmuir School **Okotoks, AB**
Secondary School Diploma *September 2016 – June 2019*

- **Awards:** First-Class Honors (90%+ average), Woods Trophy (Most Outstanding Male Athlete).

WORK EXPERIENCE

Early-Stage Startup - FinTech **Calgary, AB**
Intern Full Stack Developer *May 2021 – August 2021*

- As the only intern at an early-stage financial technology startup, I built a new FinTech application – designed to address the US market for 401k subscribers within companies. The total addressable market of 6 trillion USD at the time.
- Leveraged my skills in JavaScript, SQL, HTML, and CSS to implement a secure and scalable prototype that unified a user's retirement savings plan, account management and tax breakdowns into an intuitive user interface.
- Worked closely with the founders of the startup to design and implement workflows, contributing my own ideas to the direction of their platform. This close partnership allowed me to refine my social skills in a professional environment, elevate my responsiveness to critique and failure, and align my software design with the personalized needs of clients.
- Expanded on my knowledge from school with online learning in my own time to improve my skills and produce the application. Before ever working with full-stack development in school, I taught myself SQL, data encryption, and more for this project.
- The pressure of the financial technology sector forced me to adopt a mindset of prioritizing the security of my software to handle sensitive information such as financial statements, passwords, and banking information.
- Conducted research into existing 401k providers to gather modern UX styles and interface design for an eye-catching front end.

TECHNICAL SKILLS

- Python, C, C++, JavaScript, Java, Haskell, Prolog, HTML, CSS, Assembly, SQLite, MySQL. GitHub, ReactJS, NodeJS, MongoDB, Eclipse, Qt. Windows OS, Mac OS, Linux, Unix. Algorithms, Machine Learning, Neural Networks, UX, Agile.

PROJECTS

SmartSets Flashcard Study Application – Personal AI Project

- Designed and implemented an educational application in Python which improves the efficiency of studying traditional flashcards. Used Natural Language Processing and a Neural Network to vectorize text and create a numerical representation of the correctness of a user's response to a question. I then pass the numerical scores to a Utility-Based Agent that learns the user's skill level at each flashcard and builds custom study sessions that emphasize the questions with the lowest competence scores.

Online Retail Application – Remote Team Project

- Implemented a functional retail store in JavaScript. It included a search engine and web crawler to gather data from product pages and display the most relevant pages for a search. Implemented recommender systems to generate relevant suggestions for users. Decreased runtime on large-scale cross-validation by 66% by eliminating inefficiencies in group members' algorithms.

Elevator Control and Security System – Personal Full-Stack Project

- Start to finish design of elevator control system/security system including use cases, UML, elevator interfaces, and backend implementation in C++. Additionally, programmed an elevator AI that stores passenger requests and frequent trips to learn to prioritize some passengers over others for maximum efficiency.

TENS Therapy Device – Remote Team Project

- Start to finish design and implementation in C++ for a medical device to deliver TEMS electrical shock therapy for muscle recovery and health. Design included user interface, safety protocols, custom sessions, and simulations. MySQL database to save/replay sessions and create/store users with unique preferences and safety considerations.

EXTRA-CURRICULAR ACTIVITIES AND INTERESTS

Design and Robotics Club *September 2016 – June 2019*

- Worked with Computer Assisted Design, 3D Printing, and basic programming to design and construct robots or products to complete basic tasks or solve a practical problem facing a target consumer base.
- Early focus on goal-oriented design, prioritizing the needs of consumers in all stages of the design process.

Athletics: Ottawa Competitive Volleyball League (2020-23). Varsity: AB Cross-Country provincial champions (2017-2019), Volleyball team (2016-19, captain & MVP 2018-19), Track team (2016-19, MVP 2019). AB Club Volleyball 2014-2019, Alberta Winter Games.