TIMOTHY WILSON

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COMPUTER SCIENCE

Problem-solver | Reliable | Team player

EDUCATION

UNIVERSITY OF COLORADO – BOULDER, CO MAY 2023 • Bachelor of Science in Computer Science

- GPA – 3.35

COURSE HIGHLIGHTS

- **Starting Computing –** Techniques for writing computer programs in higher level programming languages to solve problems of interest in a range of application domains
  - Coded the video game, Oregon Trail, in C++
- **Data Structures –** Data abstractions (e.g., stacks, queues, lists, trees, graphs, heaps, hash tables, priority queues) and their representation techniques (e.g., linking, arrays). Introduces concepts used in algorithm design and analysis including criteria for selecting data structures to fit their applications
- **Computer Systems –** Covers how programs are represented and executed by modern computers, including low level machine representations of programs and data, an understanding of how computer components and the memory hierarchy influence performance
- **Software Development Methods and Tools –** Tools and techniques for successful software development with a strong focus on best practices used in industry; Front-end design and construction using HTML & CSS, back-end database design and construction, and full-stack integration
- **Calculus 1 for Engineers –** Topics in analytical geometry and calculus including limits, rates of change of functions, derivatives and integrals of algebraic and transcendental functions, applications of differentiations and integration
- **Calculus 2 for Engineers –** Focuses on applications of the definite integral, methods of integration, improper integrals, Taylor's theorem, and infinite series
- **Database Systems –** Introduces database requirements analysis, database design, and database implementation focusing mainly on the relational model and SQL, but also introducing NoSQL systems
- **Discrete Structures –**Covers topics including set theory, Boolean algebra, functions and relations, graphs, propositional and predicate calculus, proofs, mathematical induction, recurrence relations, combinatorics, and discrete probability
- **Fundamentals of Human Computer Interaction –** Introduces the practice and research of human-computer interaction, including its history, theories, the techniques of user-centered design, and the development of interactive technologies
- **Principles of Programming Languages –** Focuses on the design and analysis of programming languages and their underlying execution models. Used the programming language Scala to explore recursion, functional programming, higher-order functions, immutable values, functors, and inductive types.
- **Algorithms –** Focuses on the fundamentals of algorithms and algorithmic strategies. This includes time and space complexity, sorting algorithms, recurrence relations, divide and conquer algorithms, greedy algorithms,dynamic programming, linear programming, graph algorithms, and problems in P and NP.
- **Intensive Programming Workshop –** Covers concepts and techniques for designing large scale, maintainable systems in object-oriented programming. Studied many topics such as inheritance, unit testing, and building graphical user interfaces through QT. We had many longer projects alone and in pairs.

WORK EXPERIENCE

THE PATH BIKE SHOP SEPTEMBER 2019 – JULY 2020 Managed the register, answered calls, assisted customers, and worked on bikes. I applied for this job to pursue my passion for both mountain bikes and engineering. I learned about the mountain bike industry while also learning the key engineering principles that make bikes perform through repairs and maintenance

MAMON SEPTEMBER 2018 – MAY 2019 Filled many roles, including food preparation, cooking, and cleaning, and learned to work quickly and effectively to successfully accomplish each of the tasks I was responsible for

SAFEWAY FEBRUARY 2022 – CURRENT I fill the role of grocery clerk. This means I help the day stockers, the checkers at the cash register, and the shoppers in Drive Up and Go. I am responsible for getting goods stocked throughout the day, while also remaining on call to help out others when they are busy or need to take a break.

EXTRA CURRICULAR ACTIVITIES

Member of CU Cycling Team August 2021 – Present
Member of CU YoungLife September 2020 – Present