Elijah Atienza

Seattle, Washington | +1-425-319-3321 | Atienza.elijah@outlook.com | LinkedIn | Portfolio

EDUCATION

Edmonds College, Running Start Program, Edmonds, WA September 2020 – June 2022
GPA: 3.68 | *Completed 60 Credits – Bachelor of Science in Computer Science*

Western Washington University, Bellingham, WA September 2022- June 2026
GPA: 3.62 | *Completed 150 Credits - Bachelor of Science in Computer Science*

PERSONAL PROJECTS

X16, 16-bit computer: (*C, Assembly*)

- Created an assembler to process assembly instruction files, utilizing a two-pass decoding approach to resolve labels and convert instructions into image files compatible with an emulator.
- Developed a software emulator for a non-pipelined single-cycle x16 processor, decoding 16-bit binary instructions with a 4-bit opcode from image files. Leveraged x16 Instruction Set Architecture (ISA) to execute operations through bit manipulation, instruction decoding, and a control unit managing core logic.

Woogle, Search Engine Simulation: (*Java*)

- Designed and implemented a search engine simulation in Java, featuring a recursive web crawler, Inverted Index, and PageSet for efficient word-to-page mappings, leveraging Jsoup for HTML parsing and advanced text processing techniques like stemming, stop word removal, and custom data cleaning for accurate search results.

ePortfolio: (*HTML, CSS, JavaScript, Git*)

- Integrated the OpenWeatherMap API using JavaScript, enabling the dynamic retrieval and display of real-time weather data for multiple locations, enhancing user experience with interactive and responsive content.
- Implemented a contact form with client-side validation and integrated it with Google Apps Script to handle form submissions, ensuring efficient data collection and user feedback through asynchronous JavaScript requests.

SKILLS & CERTIFICATIONS

Languages and Technologies: Java, Python, C, C++, mySQL, HTML5, CSS, JavaScript, Git, X86 Assembly, Microsoft Visual Basic, Linux OS

Awards & Certifications: Edmonds College High Honor Roll (5 consecutive quarters), Western Washington Nominee for the NSLS Honors Society

RELEVENT COURSEWORK

CSCI 241: Data Structures and Algorithms

- Built proficiency in core data structures (arrays, graphs, trees) and algorithms (Dijkstra's, Kruskal's, quicksort) for effective problem-solving and performance optimization in data-driven applications.

CSCI 247: Operating Systems

- Developed proficiency in C programming and X86 assembly, implementing core OS concepts like memory allocation, execution speed optimization, and object file structures.

CSCI 330: Database Systems

- Gained experience in relational database management and advanced SQL, including indexing and normalization in MySQL, while data mining over 20 million data points from a university database.