Alberto Andres Escobar Mingo

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Technical Skills

Languages: Python, C/C++, Java, JavaScript, TypeScript, MatLAB, PostgreSQL
Libraries/Frameworks: AWS, Matplotlib, OpenCV, PyTorch, TensorFlow, ROS2, Arduino, Node.js. React, Express.js
Developer Tools: Git, VS Code, IntelliJ
Technical Knowledge: Data Structures and Algorithms, Machine Learning, Relational Databases, Operating Systems, Signal Processing, Risk Management, Technical Writing

Education

Bachelor of Computer Science (BCS) Sep. 2023 – Present
University of British Columbia *Vancouver, BC*

Bachelor of Engineering in Biomedical Engineering Sep. 2014 – April 2021
University of Victoria *Victoria, BC*

Experience

Software Development Engineer Intern | *JavaScript, React, AWS* June 2024 - Sept. 2024
Amazon Web Services *Vancouver, BC*
- Led the design and development of a AWS resource tags management feature for the AWS Billing Organization
- Leveraged cloud infrastructure tools and automated functions to streamline the feature's development and operation
- Explored the integration of AI tools to assist customers in managing their cloud resource labels more efficiently
- Created a proof of concept that demonstrated a 5% reduction in billing data by helping customers eliminate unnecessary resource labels

Software Developer | *Python, ROS2* Sep. 2023 – Present
UBCSailbot *Vancouver, BC*
- Spearheaded the development of mission-critical control software for an autonomous research sailboat
- Decreased travel time of voyages by 20% by devising an efficient sail control algorithm that optimizes for speed across various control states and sailing maneuvers

Software and Systems Risk Engineer | *Risk Management, Java* Sep. 2020 – July 2023
Kardium *Burnaby, BC*
- Authored device safety risk analysis documents for a medical device to achieve FDA approval for clinical trials
- Devised risk control strategies to identify and address risks within medical device software to reduce patient risk
- Reduced hours-long tasks to a few minutes for the technical writing team by developing document processing software

Projects

UBC Flow| *Python, Generative AI, Cloud Computing* March 2024 - Present
- Developed "UBC Flow," an AI-powered academic advising chatbot, for the UBC Cloud Innovation Centre's 2024 Hackathon, leveraging Amazon Bedrock and Generative AI technologies
- Utilized Anthropic's Claude LLM and web scrapped course data to enable the chatbot to generate accurate academic advising responses to course-related inquiries, effectively reducing academic advising wait times from days to minutes

Transparent Media | *Javascript PostgreSQL, Git* Jan. 2022 - May 2023
- Published a Chrome extension that identifies the political bias of news websites for news readers
- Built a RESTful API using Express.js and PostgreSQL for scraping and storing bias data of over 1000 news sites

Melanoma Assessment Model | *Python, OpenCV, TensorFlow* Jan. 2021 - April 2021
- Constructed a neural network model for detecting signs of melanoma in pictures of skin growths
- Achieved 84.66% accuracy on identifying suspicious features of skin growths

Automated Sorting Conveyor System | *C, Real-Time System Design* Sept. 2019 - Dec. 2019
- Designed algorithm for classifying and sorting objects into four categories based on optical sensor
- Wrote firmware in C for controlling and monitoring different actuators and sensors on a conveyor belt system controlled by an Atmel microcontroller
- Improved sorting time by 36% through optimization of firmware