# Christian Bacalhau

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Availability: January - August 2026

#### **EDUCATION**

#### Northeastern University

Boston, MA

Candidate for a Bachelor of Science degree in Computer Science | GPA: 3.74/4.0

September 2023 - May 2027

#### Relevant Coursework

Object-Oriented Design, Algorithms and Data Structures, Artificial Intelligence, Projects in Cloud Computing, Programming in C Discrete Structures, Mathematics of Data Models, Foundations of Cyber Security

#### TECHNICAL SKILLS

Languages: Java | C++ | Python | SQL | JavaScript | HTML/CSS | React | Swing | JUnit | Mockito | Pandas | C# Developer Tools: AWS | IntelliJ | Eclipse | VS Code | Docker | Jupyter Notebook | Git | Datagrip

#### EXPERIENCE

## Software Developer

Jan. 2025 – June 2025

Verisk

Boston, MA

- Contributed to full-stack development of a new client-facing application by designing, implementing, and testing features that enabled end-to-end user workflows.
- Built AWS environments for loss simulation runs, using services such as CloudWatch, DynamoDB, Step Functions, Lambda, S3, and API Gateway to support monitoring and scalability.
- Reproduced and debugged issues reported by colleagues by simulating cloud runs locally with Docker, streamlining the troubleshooting process and accelerating development.

#### Amazon Web Services Skill Center

May 2024

Northeastern University

Seattle, WA

- Participated in weekly educational sessions at the AWS Skills Center, gaining hands-on experience with foundational cloud computing concepts
- Learned the fundamentals of cloud computing, e.g., databases, networks, scaling, security, block storage, etc.

# Northeastern Electric Racing - Software Team

Sep. 2023 – May 2024

Northeastern University

Boston, MA

- Utilized Docker to run the software that held the website for the team written in TypeScript and using React
- Handled bug fixes and implemented new features on the team's website based on requests from other members
- Used Git to push my changes to the code base to await further approval

#### Projects

#### NU Track | VS Code, Python, SQL, Docker

January 2025

- Built a full-stack application with a team to streamline co-op and internship application tracking.
- Designed a RESTful backend API with modular blueprint architecture to support scalable CRUD operations.
- Developed a component-based front-end in React with reusable modules and persona-specific pages, enabling dynamic user interaction, streamlined navigation, and tailored workflows for different types of users.

#### Web Application | Amazon Web Services

June 2024

- Built a web application on an EC2 instance to record student information.
- Configured an Application Load Balancer and EC2 Auto Scaling for fault tolerance and high traffic handling.
- Used Amazon's Cloud9 to simulate 600,000 requests which successfully auto-scaled and load-balanced
- Decoupled the app with Amazon RDS for scalable MySQL storage and implemented IAM roles with Secrets Manager for secure access and communication.

#### Marble Solitaire | Java, Swing, JUnit, IntelliJ

June 2024

- Implemented Marble Solitaire using object-oriented programming with inheritance and encapsulation, creating a modular game structure.
- Applied MVC pattern by separating the model (game logic), view (user interface), and controller (user interactions) to enhance code organization and maintainability.
- Configured multiple game variants of Marble Solitaire, with a UI that lets players select their preferred version.

### Interests & Languages