

# PATRICK J. OLENDER

126 Paloma Heights, Colorado Springs CO 80921

(616) 438-8724

olenderpj@gmail.com

www.linkedin.com/in/patrick-olender

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Graduating senior in computer science with experience in software engineering, development operations, machine learning, and data analytics. Passionate about innovation and learning at every possible moment.

## Education

**University of Colorado at Colorado Springs**

Bachelor of Arts – Computer Science

**Expected Graduation 12/2022**

GPA: 3.771/4.000

## Technical Skills

**Languages:** C++, Python, Java, SQL, Ruby, HTML, CSS, Bash, Shell Scripting, Perl, R, Lisp

**Programming:** Version Control, Data Structures, Algorithms, Machine Learning, Object Oriented Programming

**Web Technologies:** MVC, API, REST, Django, Bootstrap, Heroku, Spring Framework, Spring Boot, Ruby on Rails

**Databases:** PostgreSQL, MySQL, SQLite3, JSON

**Business Tools:** Jira, Confluence, Git, GitHub, Scrum, Kanban, Zenhub, LaTeX, Microsoft Teams, Zoom

**Machine Learning:** Deep Learning, Clustering Algorithms, Tensor Flow, Keras, PyTorch

**Programming Interfaces:** Spotify, Amazon Selling Partner, Etsy, ShipStation, BigCommerce

## Work Experience

**Software Engineer & Integration Intern, Northrop Grumman – Colorado Springs, CO**

**05/2022 – Present**

Developed mission-critical software to handle real-time satellite and missile data. Worked with Government representatives to build requirements and process and fix bugs found in existing software version releases.

- Created software features following contractual design specifications.
- Integrated software patch files using Git to create new baseline version releases that were deployed to customers.
- Resolved mission critical bugs found in software baseline versions on an accelerated timeline.
- Generated professional documentation to reflect software changes

**Software Engineering Teachers Assistant, University of Colorado – Colorado Springs, CO**

**08/2022 – Present**

Mentored Students on software engineering topics and assisted in developing lesson plans and assignments to better suit all learning styles.

- Developed ARM and x86 Docker container environments for a more consistent student workspace
- Performed lectures on software version control (Git, GitHub) and current industry development methodologies
- Designed more effective learning material and assignments using the Ruby on Rails web framework.

**Backend Software Engineer Intern, Backcountry.com – Salt Lake City, UT (Remote)**

**05/2021 – 08/2022**

Member of a small international agile team in a fast-paced development pipeline assisting in the modernization and efficiency enhancement of backend APIs for a large-scale e-commerce platform.

- Developed enterprise Java code to handle more than 5 million annual requests and transactional emails.
- Analyzed legacy Perl code to develop API endpoints using the Model View Controller (MVC) architecture pattern.
- Produced new PostgreSQL database interactions using 100+ tables of customer data.
- Collaborated with international team members in Costa Rica and Pakistan.

## Research and Projects

**Machine Learning – Multiclass Natural Language Processing, Sentiment Classification Model Defense**

**Spring 2022**

- Researched modern attack methods and scenarios for attacking machine learning models.
- Generated, collected, and analyzed perturbed sentiment data for attack simulation.
- Executed neural model attacks, and documented observations and results.

**Deep Learning – Optimized Chromosome Structure Generation with 3D Convolutional Neural Networks**

**Spring 2022**

- Designed a theoretical reinforcement learning algorithm to predict optimal 3D chromosome structures.
- Developed knowledge of deep learning frameworks and architecture patterns.
- Applied conceptual machine learning technologies to real-world data sets.