

Colin Pannikkat

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EDUCATION

Oregon State University

B.S. Computer Science, Minors in Economics and Math

Corvallis, OR

Expected Graduation 2026

- GPA: 3.96
- Participating in an **Accelerated Master's in Computer Science** through the AMP program.
- OSU Hackathon Winner **3x** (Spring 2023, Fall 2023 and Spring 2024)
- URSA Engage Recipient for Undergraduate Research
- Relevant coursework: Discrete Mathematics, Vector Calculus I, Linear Algebra I, Mathematical Statistics, Data Structures, Computer Architecture & Assembly Language, Analysis of Algorithms, Operating Systems I/II, Machine Learning, Causal Inference

EXPERIENCE

BPP Lab Assistant

Forest Ecophysiology Lab, OSU

Sept 2024 – Present

Corvallis, OR

- Contributing to ongoing research on plant ecophysiology by utilizing a mechanistic process-based computer simulation model to explore how energy balance affects plants' ability to tolerate high temperatures.

Supplemental Instruction Leader

Academic Success Center, OSU

2023 – Present

Corvallis, OR

- Planning and facilitating 5, 50-minute study tables of 8-12 students per week for ECON201, Intro to Microeconomics, implementing best practices of collaborative learning, and synthesizing relevant course content based on course lectures.

QA/QC Intern

Zabble Inc.

July 2024 - Sept 2024

Remote

- Conducted weekly testing of the Zabble Zero mobile app for predetermined scenarios with detailed testing methods and results in written reports
- Developed workflow to partition user data and minimize Athena query size in Quicksight using AWS Glue, PySpark, and Boto3, reducing the cost of AWS S3 services by 33%.

Backend Software Engineer Intern

College of Business, OSU

Apr 2024 - Jun 2024

Corvallis, OR

- Planned and developed a proof-of-concept interactive chatbot in a team of 6 with the goal of offering class, assignment, and advising support to 500-600 business freshmen yearly.
- Implemented a Retrieval-Augmented Generation (RAG) LLM pipeline in Python using LlamaIndex and ChromaDB for efficient information retrieval. Used Flask with JWT for static page serving and authentication.

Undergraduate Researcher

Secure AI Systems Lab (SAIL), OSU

2022 – 2024

Corvallis, OR

- Contributed to meaningful research on security and privacy issues in ML/AI under Asst. Prof. Sanghyun Hong.

PROJECTS

Backcast | *Python, Flask, AWS, PyTute, PyDub, JS, 3JS, Git*

2024

- Built a 24/7 AI-powered radio stream that continuously scrapes music and generates radio jockey content similar to an old radio news station.

Focii | *Chrome Web API, Python, Javascript, HTML/CSS, Node.js, Figma, Git*

2023

- Developed and implemented a simple linear classifier to filter “distracting” websites based on the word embeddings of content, and trained the model on a curated dataset of distracting/non-distracting content.

SKILLS

Languages: Python, C/C++, R, JavaScript, HTML/CSS, LaTeX, Bash

Frameworks/Libraries: PyTorch, NumPy, Scikit-Learn, Matplotlib, StatsModels, Transformers, LlamaIndex, Flask, Git

Paradigms: Object-Oriented Programming, Dynamic Programming, Functional Programming

Interpersonal: Leadership, Facilitation, Communication, Planning, Organization, Technical Writing

EXTRACURRICULARS

President, Skate Club

2023 – Present

Co-President, Economics Club

2023 – 2024