# Ethan Yee

Applied Computing Major (Computer Science) · University of Washington

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## Education

**University of Washington Bothell** *Bothell, Washington*

Bachelors in Applied Computing (Computer Science) *Sep. 2019 - Mar. 2023*

- **Concentration:** Data Science · **GPA:** 3.68/4.00 · Annual Deans List
- **Coursework:** Algorithms and Data Structures · Statistics · Data Visualization · Data & Society · Technical Writing · Software Engineering · Hardware & Operating Systems · Intro to CyberSecurity · Database Systems

## Skills

**Programming** C++ · Python · Java · Javascript · Bash · SQL · R · React.js · HTML/CSS · NoSQL
**Concepts** Data Structures · Algorithms · Regression Analysis · Data Analytics · Probability · Statistics
**Toolkit** Jupyter Notebook · Excel · MS Access · Unix/Linux · GitHub · Docker · Tableau · XCode

## Work Experience

**Apple Inc.** *Austin, Texas*

Computer Vision Intern *Sep. 2021 - Present*

- Responsible for managing research and development life cycle of data generation and data pipelines at Apple
- Used **computer vision** and **statistical modeling** techniques to improve performance, efficiency, and accuracy of object detection tools
- Developed and refined **data pipelines** to increase efficiency of **Region Based Convolutional Neural Networks** by **79%**
- Present new data and methodologies to increase efficiency for **synthetic data generation** by **24%** to project managers and tech leads

**Apple Inc.** *Cupertino, California*

Software Engineer Intern *Jun. 2021 - Sep. 2021*

- Managed legacy codebase for iOS applications using Swift, Python, and Node.js
- Assisted in plan-driven development of software products for iOS applications
- Responsible for managing back-end and database functionality in Python and Node.js
- Performed excellent documentation and communication about the code base to Project Managers

**Sensors, Energy, and Automation Laboratory** *Seattle, Washington*

Research Assistant *Jan. 2021 - Jun. 2021*

- Created an Android app using **Java** that detects food and estimates the calories on a plate based on **Convolutional Neural Networks**
- Performed **regression** and **time series analysis** on unemployment trends using visualization packages in **Python**
- Assisted in scientific research on the spread of COVID-19 and presented/analyzed the results using **Time Series Modeling**
- Presented information and laboratory findings to UW partners and affiliates using **Excel**, **Python**, and **MATLAB**

**Sensors, Energy, and Automation Laboratory** *Seattle, Washington*

Fullstack Developer (Project Lead) *Sep. 2020 - Jan. 2021*

- Led a team of 3 front-end and 2 back-end developers to create web applications for laboratory projects
- Created and designed a responsive front-end for different laboratory projects using **React.js**
- Liaised with back end developers, front end developers, project managers, and laboratory managers to draft technical requirements
- Orchestrated the development lifecycle of a secure API hosted on **AWS Amplify** with **GraphQL**

**Paypal Holdings, Inc.** *San Francisco, California*

Data Engineer Intern *Sep. 2020 - Dec. 2020*

- Organized the design of a new Database Management System and led efforts to produce efficient and reliable back-end services
- Optimized data pipeline completions to maximize performance by up to **32%** using a JSON API
- Designed a new experimental program that was enabled by multi-thread-able queries, boosting efficiency by **11%**
- Maintained reliable data pipelines, and led automation efforts for payroll transactions

**Microsoft Corporation** *Redmond, Washington*

Software Engineer Intern *Jun. 2020 - Sep. 2020*

- Collaborated with a team of four other interns to create new verification and security tools
- Implementing system security hardening guidelines on system Integrity and performing functional testing on systems after security hardening
- Responsible for re-scaling over 64 applications to meet security practices for Windows using C++
- Tested applications and operating system stability against 140+ common Cyber-security attacks

**University of Washington** *Bothell, Washington*

Student Assistant (Technical Support) *Jun. 2019 - Mar. 2020*

- Modeled and organized over **2 million dollars** worth of inventory and costs using **Python** and **Tableau**
- Forecast revenue trends for the next fiscal year after the creation of a new parking structure using **linear regression models**
- Performed data wrangling on over **301,463** transactions and **2,000** citation details based on prior parking experiences
- Maintained hardware and software components on parking stations and hand-held parking devices