# **Andrew Macpherson**

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#### Skills and Qualifications

- Highly proficient in C++, C#, Python, JavaScript, HTML, CSS, Sass, SQL
- Skilled in Vue.js, Node.js, Phaser.js, jQuery, Bootstrap, Responsive Design, BeautifulSoup, Ruby, F#, Go, text analysis, Agile methodology
- Data collection, management, and presentation experience
  - o Experience and education (classroom and independent study) in data visualization principles
  - Highly proficient in Tableau & Excel
- Passionate and experienced in data analytics with strong analytical skillset (Tableau, Excel)
- Effective time management skills demonstrated by balancing three majors, multiple jobs, and extracurricular studies and experiences
- Exceptional writing skills, both written and verbal

### Education

Bachelor of Science in Computer Science
Bachelor of Science in Physics
Bachelor of Arts in Honors Liberal Arts
Study Abroad

Seattle Pacific University, Seattle, WA
Seattle Pacific University, Seattle, WA
June 2023
Seattle Pacific University, Seattle, WA
June 2023
June 2023
University of Roehampton, London, England
Sept – Dec 2021

High School Diploma June 2019

Pacifica Christian High School, Newport Beach, CA

GPA: 4.3 National Latin Examination Silver Medalist

Founder of STEAM Club TGC Scholar

Founder of Latin Club Graduated Maxima Cum Laude with TGC Distinction

National Honor Society Founder's Medal Recipient

AP Scholar with Distinction

#### Experience

# Intern, Inflight Operations

June – September 2022

- Frontier Airlines, Denver, CO
  - Selected from extremely competitive applicant pool to enhance inflight operations in Frontier's main hub
  - Performed extensive data analysis to enhance airline operations and corporate systems
  - Overhauled complex logistical network to oversee distribution of over 500 crew badges nationwide
  - Diagnosed and targeted operational inefficiencies to conserve and streamline company resources
  - Worked with over 500 flight attendants & visited planes daily to ensure smooth operations

## Society for Physics Students Vice President & Treasurer

September 2021 – Present

Seattle Pacific University, Seattle, WA

- Unanimously elected to serve concurrently as Vice President and Treasurer
- Organized weekly meetings of the Society of Physics Students to discuss interdisciplinary matters
- Oversaw club expenditures and ensured fiscal responsibility via regular liaisons with student govt.

#### **Children's Ministry Volunteer**

July 2021 – Present

First Christian Church, Huntington Beach, CA

- Completed child safety training to facilitate child comfort, safety, and enjoyment
- Worked with children on a weekly basis to provide an environment both fun and educational
- Prepared weekly before and after services through program memos and reflective assessments

## **High School Football Official**

February – April 2021; September – November 2022

Pacific Northwest Football Officials Association, Seattle, WA

- Advanced officiating career to next level as a result of demonstrated ability and passion for subject
- Completed extensive 6-week training including manuals and on-field experience to strengthen abilities

- Worked with mentors and officials up to the highest level (NFL) to continually improve performance
- Enforced intricate rule set in high-pressure environment whilst advising and regulating coaching staff and players

## Physics Tutor February 2021 – Present

Freelance, Virtual/Newport Beach, CA/Seattle, WA

- Recommended by former teacher to current students on account of subject prowess and knowledge
- Consulted with parents and students to establish specific learning goals and create optimal experience
- Adapted to different learning styles and needs to dynamically prepare for examinations and increase subject retention
- Methods yielded marked improvements including average test scores increasing by 2 letter grades

### Flag Football Official

September 2019 – Present

Underdog Sports Leagues, Seattle, WA

- Extensive training and execution of conflict management strategies across a variety of situations
- High performance in a fast-paced, high-pressure work environment
- Demonstrated ability to recognize and react to complex situations in real time
- Multi-faceted skillset and teaching ability led to multiple promotions including officiating additional sports

## **Physics Learning Assistant**

January – March 2022

Seattle Pacific University, Seattle, WA

- Assisted peer students in physics learning, experimenting, and assignments
- Undertook concurrent coursework in teaching pedagogy to dynamically improve
- Engaged in weekly preparatory meetings to review content and assess teaching strategies

### **Donut Topper & Cashier**

June 2018 - June 2021

Duck Donuts, Huntington Beach, CA

- Thrived in multifaceted work experience that included performing the duties of every position in store
- Emphasis on enthusiastic customer service in a fast-paced environment serving up to 50+ customers daily

Delivery Assistant December 2020

United Parcel Service, Huntington Beach, CA

- Assisted drivers in last-mile logistics of intricate shipping network during peak season
- Expedited routes and improved efficiency moving average package numbers from 200 to 400 per day
- Interacted regularly with customers to ensure delivery satisfaction and protocol compliance

### **Deputy Data Director, Regional Tech Captain**

August – November 2020

Harley Rouda For Congress, Newport Beach, CA

- Revitalized, managed, updated, and analyzed hundreds of thousands of data weekly
- Oversaw large scale phone banks (5 million+), supporting volunteers experiencing technical difficulties
- Recognized and quickly promoted multiple times to perform expanded cross-platform technical duties

## **Delivery Driver**

November 2020 – Present

DoorDash, Huntington Beach, CA

- Performed delivery services in an efficient manner (yielding 91% on-time metric) often handling multiple orders simultaneously
- Demonstrated multi-tasking abilities including selecting most efficient routes in compliance with delivery instructions, operating motor vehicles safely during peak hours, and consistently communicating with customers and businesses
- Liasoned between customers and businesses, extensively communicating to optimize satisfaction
- Exhibited quality service as shown through a 4.81/5 average rating and 98% satisfaction rating across hundreds of deliveries
  - o 92.4% 5-star reviews

Boy Scouts of America, Troop 1, Huntington Beach, CA

- Fulfillment of all BSA requirements including over 3 years of leadership experience at both small scale (leading a unit of 7-10 boys) and large scale (managing a troop of 60+ boys and 20+ adults)
- Innovated, coordinated, and executed 100+ hour project to help local Alzheimer's patients

#### **Associated Students Treasurer**

October 2016 – June 2019

Pacifica Christian High School, Newport Beach, CA

- Founded and co-managed Treasury Department, overseeing income and expenditure of \$150,000+
- Developed and maintained strong interpersonal relationships with committee leaders to ensure fiscal responsibility and plan long-term and joint expenditures

#### **Special Projects**

Computer Vision Deep Learning in Astronomical Image Classification Seattle Pacific University, Seattle, WA March 2022 – June 2023

- Undergraduate Honors capstone involving extensive interdisciplinary research at multiple universities
- Pursuing automated classification of astrophysical phenomena using deep learning techniques
- To be presented at Seattle Pacific University's 2023 Honors Research Symposium

## **Graduation Planning App**

**September 2022 – June 2023** 

Seattle Pacific University, Seattle, WA

- Undergraduate Computer Science Capstone aiming to build an original web app as part of a 6-person team
- Intending to simplify course planning for students by creating accessible tools with intuitive UIs
- App uses C++, Python, JavaScript, HTML, CSS, and technical tools GitHub, Jira, Confluence

### **Data Analysis with Python**

January – March 2020

Seattle Pacific University, Seattle, WA

- Undertook a self-taught, faculty-guided independent study to learn and apply Python tools & principles
- Mined, modeled, & analyzed statistics to identify outstanding performances and hidden trends
- Generated summative report detailing findings and analysis via kernel output and data visualizations

# Research and Statistical Analysis Pertaining to Viewpoint Associations

**June 2018 – May 2019** 

Pacifica Christian High School, Newport Beach, CA

- Completed yearlong Honors capstone research project spanning vast interdisciplinary subject matter
- Studied statistical correlations between individuals' political and philosophical viewpoints by designing, administering, and analyzing survey to collect, identify, and quantify subjective and tacit convictions
- Undertook extensive research in fields of philosophy, politics, statistics, and computer science
- Compiled and presented results in 50+ page report for Capstone Presentation Showcase Seminar
- Studied statistical correlations between viewpoints by designing, administering, and analyzing survey to collect, identify, and quantify subjective and tacit convictions using statistics and computer science

#### Relevant Coursework

**Math:** Calculus I, II, III, Vector Calculus, Differential Equations, Linear Algebra, Probability & Statistics for Engineering

**Computer Science:** Introduction to Logic & System Design, Data Structures I & II, Data Analysis with Python (Independent Study), Computer Organization & Assembly Language, Computer Programming for Engineers, Digital Methods 2, Software Development 3, Operating Systems, Advanced Computer Architecture, Software Engineering (Capstone)

**Physics:** Physics for Science & Engineering I, II, III, Intermediate Physics, Astronomy: The Individual and the Universe, Astrophysics, James Webb Space Telescope Independent Study, Dynamics, Natural Sciences Seminar. Thermodynamics. Electricity & Magnetism I

**Other:** Christian Faith, Christian Scripture, Christian Theology, Classics Seminar, Faith and Science, Culture & Social Systems, Preparing to Teach, History & Representation, Research & Writing, Principles of Professional Practice, Learning to Teach, Honors Research Capstone