Dylan **Chapell**

COMPUTER SCIENCE AND SOFTWARE ENGINEERING

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Education

Colorado College   *Aug 2020 - May 2024*

B.A. IN COMPUTER SCIENCE WITH DISTINCTION, MINOR IN CHEMISTRY   *Colorado Springs, CO*

- GPA: 3.85
- Relevant Courses: Computer Networking, Scientific Simulation, Computer Organization
- Supplemental Courses: Inorganic Chemistry, Analytical Chemistry, Database Management, Computational Graph Theory

Skills

Languages	C, Java, Python, SQL, MongoDB
Command-line	Vim, Git, GCC, GDB, Linux
Supplemental	Customer Service, Conversational Spanish

Highlighted Projects

Research - NeRF-based 3D Reconstruction and Orthographic Novel View Synthesis Experiments Using City-Scale Aerial Images   *Summer 2023*

CONSUMER NETWORKING TECHNOLOGIES REU   *University of Missouri*

- Researched the field of NeRF novel view synthesis and identified an area for knowledge creation.
- Developed a novel method to focus NeRF training in large scenes, accelerating Ground Control Point production.
- Lead author of a poster at the IEEE Applied Imagery Pattern Recognition workshop and a paper on the results of the work.

Simulation Optimization at Lawrence Livermore National Laboratory   *Fall 2023*

COURSE: SCIENTIFIC SIMULATION IN SITU   *Colorado College*

- Collected and analyzed performance metrics of a C simulation program.
- Identified an instance of false sharing negatively impacting parallel performance.
- Designed and implemented a split memory architecture to reduce instances of false sharing.
- Used a distributed git workflow to share features with group members and classmates.

Project - Custom Network Stack   *Fall 2022*

COURSE: COMPUTER NETWORKING   *Colorado College*

- Worked in a team to implement network stack for novel hardware in C.
- Wrote link layer to interact with optical transmitters and receivers through Raspberry Pi GPIO.
- Wrote network layer to discover network topology and route packets.
- Wrote system to route packets between multiple applications running on the same host.
- Wrote multiple test applications utilizing the network.

Selected Work and Volunteer Experience

CC Office of Information Technology   *Jan 2023 - Now*

APPLE REPAIR AND SOLUTIONS CENTER   *Colorado Springs, CO*

- Diagnosed and repaired computers and phones as an Apple certified technician.
- Resolved technical issues for students, staff, and faculty.

CC Quantitative Reasoning Center   *May 2023 - Now*

COMPUTER SCIENCE PEER TUTOR   *Colorado Springs, CO*

- Worked with professors to provide tutoring tailored to advanced courses (Data Structures and Algorithms, Computer Organization).
- Tutored peers in advanced and beginner Computer Science courses, as well as cross discipline courses.

Alaska Fjordlines   *Summer 2019 - Summer 2022*

DECKHAND AND OFFICE ASSISTANT   *Haines, Alaska*

- Answered client inquiries and processed bookings over email, phone, and in person.
- Organized sailing schedules for daily boat tour.
- Ensured a good client experience onboard, serving refreshments, answering client questions, and assisting with the wildlife tour.