

# Matthew J. Orford

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## EDUCATION

### University of Southern California

August 2017 – May 2021

*B.S. in Computer Science*

- *Honors*: Presidential Scholar, Dean's List
  - *Activities*: Data Science Club, HackSC, Trojan Scholars Society, Ski & Snowboard Club
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## PROFESSIONAL EXPERIENCE

### Software Engineer IV at Credit Karma

September 2023 – Present

- Architected and led the development of a Kafka-based, high-performance mortgage application monitoring system, spearheading its evolution into a key company-wide platform and earning Credit Karma's *Exceptional Impact Program* award for the effort.
- Designed and implemented a reverse ETL system, which leveraged custom Scala workflows to dynamically translate complex rate grids from BigQuery into personalized offers that increased user engagement and conversion rates by 40%.
- Overhauled CI/CD pipelines for multiple microservices with CircleCI, Jenkins and Kubernetes, resulting in a 40% improvement in deployment efficiency and reducing application deployment time from hours to minutes across development, staging, and production environments.
- Mentored and managed three interns, guiding all to return offers through hands-on projects in data pipeline development and performance tuning.

### Software Engineer III at Credit Karma

June 2022 – September 2023

### Software Engineer II at Credit Karma

June 2021 – June 2022

### Teaching Assistant at USC

January 2021 – May 2021

- Served as Teaching Assistant for USC's "Managing Data in C++" course, supporting 60+ students in advanced data structures and algorithms implementation.
- Conducted weekly office hours, offering guidance on topics including memory management, STL containers, and database connectivity in C++.

### Software Engineering Intern at Credit Karma

August 2020 – December 2020

- Collaborated with cross-functional teams including product management and design to launch the company's newest product, Credit Karma Money, directly contributing to a 20% increase in app adoption.
- Engineered an automated monitoring system for iOS App Store reviews, utilizing Python to process 10,000+ daily reviews with 95% accuracy in critical feedback identification. Integrated Apple's API for data ingestion, NLP for sentiment analysis and keyword extraction, and Slack API for real-time alerting.

### Product Management Intern at Credit Karma

May 2020 – August 2020

- Strategized and guided the implementation of a new authentication protocol, effectively resolving VPN-related access issues for over 50,000 users monthly.
- Worked with stakeholders from analytics, engineering and design to revamp key user experiences related to account recovery and registration.

### Computer Science Tutor at USC

August 2019 – December 2020

- Provided guidance and instruction in foundational and advanced topics, including Python, C++, discrete mathematics, and machine learning.
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## RESEARCH

### ML Research Assistant at USC Department of Linguistics

2021

- Developed machine learning models using Python, scikit-learn, and TensorFlow to analyze viral RNA sequences, focusing on COVID-19 replication mechanisms.

### NLP Research Assistant at USC Institute for Creative Technologies • Los Angeles, CA

2020

- Adapted OpenAI's GPT-2 to summarize complex visual combat simulation data, enhancing its applicability to military strategy and training scenarios.
- Developed a Python-based data pipeline to extract and preprocess a large corpus (1M+ articles) from Wikipedia for NLP tasks.