

# Benjamin Elliott

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## EDUCATION

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### University of Southern California, Los Angeles, CA

- Viterbi School of Engineering: Bachelor of Science in Computer Science and Engineering
- Dornsife College of Letters, Arts, and Sciences: Bachelor of Science in Applied and Computational Mathematics
- Graduated Magna Cum Laude with Cumulative GPA 3.73
- Merit: Trustee Full-Tuition Scholarship, Viterbi Undergraduate Fellow, Merit Research Award
- Mathematics Consultant for award-winning Short Film “Variables”
- Relevant Coursework: Artificial Intelligence, Data Structures, Adv. Linear Algebra, Computational Methods

## EXPERIENCE

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### Microsoft, Redmond, WA

2019 – Present

*Software Engineer II (Feb 2021 – Present)*

*Software Engineer I (Aug 2019 – Feb 2021)*

- Developing application that analyzes millions of telemetry datapoints to highlight high-impact failures
- Improved high-impact failure detection in windows OSES across all metrics by 30%, saving 10s of millions of dollars
- Utilizing core machine learning principles to create robust metrics to measure failure detection success
- Architecting core Windows telemetry features further anonymizing and protecting customer data
- Collaborating with Security, Legal, and Servicing teams to lead servicing in telemetry and windows error reporting

### Microsoft, Redmond, WA

2015 – 2018

*Software Engineering Intern*

- Researched (proprietary) methods for fully automated regression detection and resolution (2018)
- Created IoT bot software leveraging cloud AI to interact and understand users through voice (2017)
- Designed and built a Microsoft informational web application for use in 500+ global locations (2016)
- Developed a web application to improve the accessibility/management of voice banking (2015)
- Collaborated with a team of ALS patients to develop impactful hardware and software (2015)

### USC (Machine Learning Labs), Los Angeles, CA

2015 – 2017

*Undergraduate Lab Researcher*

- Researched and developed state of the art LSTM recurrent neural networks
- Presented performance of various models given Word2Vec and GloVe word embeddings
- Iterated on developed model performance in sentiment matching task using model ensembles

### University of Washington College of Engineering, Seattle, WA

2014

Department of Electrical Engineering, Laboratories of Dr. John Sahr and Dr. Blake Hannaford

*Software Engineering Intern*

- Developed program to calculate ionospheric radio wave motion under diverse conditions (Dr. Sahr)
- Built and coded microprocessors attached to leg prosthetics to provide patient sensory feedback (Dr. Hannaford)

## PROJECTS

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### Atlas, Seattle, WA

2019 – 2021

*Founder*

- Created service to ingest BioTech market data from 10+ APIs, produce ~20 technical indicators, and actively trade on market
- Built backtesting engine to analyze performance of in-development models
- Architected backend SQL server for hosting two decades of in-market data
- Devised proper test/prod environments, application versioning, rolling logging, deployment pipeline for on-prem server

## TECHNICAL SKILLS

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- *Languages:* Python 2.7/3+, SQL, C#, C++/C, JavaScript, HTML5, CSS
- *Tools:* Git, Numpy, Pandas, Scikit-Learn, Docker, Azure
- *Platforms:* Windows, Linux, Web
- *Hardware:* FPGA, Arduino, Raspberry Pi, Snapdragon 410c