Alex Cannan

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Education

- **Brown University, Providence, RI** GPA: 3.5
  Sc.M. Engineering (Signal Processing) *Graduated May 2020*
  - Relevant courses: Pattern Recognition/Machine Learning, Graph Theory, Digital Signal Processing, Audio and Speech Processing, Mathematical Statistics, Scientific Programming in C++
- **University of Connecticut, Storrs, CT** GPA: 3.4
  B.S. Engineering Physics (Electrical and Computer Engineering Focus) *Graduated May 2018*
  - Relevant courses: Applied Linear Algebra, Multivariable Calculus, Differential Equations, Partial Differential Equations, Mechanics, Electricity and Magnetism, Statistical & Thermal Physics, Quantum Mechanics, Signals & Systems, Systems Analysis, Optical Engineering, Communication Systems, Semiconductor Devices & Nanostructures

Skills

Languages: Python, C++, Go, Bash, JavaScript, HTML/CSS

Databases: MongoDB, BigQuery, SQLite, ElasticSearch, Weaviate

Versioning/Deployment: Git, Github Actions, Docker, Kubernetes, Argo CD

Web: FastAPI (Python), Swagger/OpenAPI, WebSockets, WebAssembly

Metrics: Prometheus, Grafana, LogDNA

Clouds: AWS, GCP, Azure, Oracle, Digital Ocean

Work Experience

- **Zencastr** Remote
  Machine Learning Engineer *Oct 2019 - Present*
  - Developed and deployed Zencastr's transcription pipeline, automatically transcribing podcast audio after recording completion
  - Big data visualization of interconnected graphs using NetworkX and Cytoscape
  - Responsible for uptime and accuracy of various internal business intelligence tools
- **Your Heaven Audio** Providence, RI
  Product Engineering Intern *July 2018 - Oct 2019*
  - Conceived, prototyped, and implemented a feedback elimination algorithm for use in embedded systems
  - Applied optimizations to legacy firmware C++ code for use in a PIC32 Microcontroller
- **Harman International Industries** Shelton, CT
  Test Engineering Intern *Summer 2017 & 2018*
  - Developed scripted test procedures to detect faults in microprocessor-controlled amplifiers
  - Worked with team to develop scripted and written procedures for factory-level testing
  - Victor of Harman's intern competitions–worked with other interns to develop marketing/business strategies for various projects

- **UConn Quantitative Learning Center** Storrs, CT
  Physics/Math/Statistics Tutor *April 2016 - May 2018*
  - Provide tutoring in calculus based physics/math/stats courses, tutoring up to 10 students at once
  - Able to convey abstract concept to many different kinds of students

Activities

- **Progressive Coders Network** November 2021 - Present
  Volunteer Developer
  - Member of ProgCode, a non-profit organization building open-source tools to reduce the influence of money in politics
- **UConn Audio/Visual Club** April 2016 - May 2018
  Founder and President
  - Founder and President of the UConn AV Club, a funded organization on campus, which provides a dynamic environment for peers to collaborate on their audio and visual projects together
- **Cloudwatch Records** June 2012 - Present
  Sole Proprietor
  - Manager: Album packaging, distribution, and light marketing for various acts
  - Producer: Experience with high-fidelity audio recording and mixing via Pro Tools and Reaper

Interests

Academic: Speech Processing, Graph Understanding

Sports: Rowing, Rock Climbing

Arts: Music, Drawing

Membership: IEEE, ISCA