Jack Denson

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EDUCATION

Northeastern University, Boston, MA   Aug 2019 - May 2023
- Bachelor of Science in Computer Science with Honors
- Overall GPA 3.97/4.0, relevant course GPA 4.0/4.0, Dean's List
- Relevant Courses: Algorithms & Data Structures, Computer Systems, Software Development, Machine Learning & Data Mining(I & II), Object-Oriented Design, Mathematics of Data Structures, Noninteractive Rendering, Foundations of Data Science, Foundations of Cybersecurity, Networks and Distributed Systems

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TECHNICAL KNOWLEDGE

Languages: JavaScript, Python, Java, TypeScript, SQL, Bash, Groovy, R, HTML, CSS
Technologies: Git, Node.js, Vue.js, React.js, Docker, MongoDB, PostgreSQL, Redis, ElasticSearch, Jenkins, REST APIs, HTTP, TCP, UDP, SNMP, Express.js, Hapi.js, NumPy, Pandas, TensorFlow, JUnit, Mocha
Cloud Services: AWS EC2, AWS S3, AWS Batch, AWS Cloudwatch, AWS ECR, AWS RDS, AWS Redshift, AWS IAM, AWS ElasticSearch, AWS Lambda, Heroku, Render

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PROFESSIONAL EXPERIENCE

Starry, Inc., Boston, MA   January 2022 - October 2022
Full-Time Cloud OSS Software Engineer Co-op, Part-Time Cloud OSS Software Engineer
- Engineered and improved upon dozens of networking-focused services, prioritizing monitoring and observability of Starry's network infrastructure
- Improved upon custom data sharding protocols to enable scalability without sacrificing ease of data access
- Spearheaded SNMP control plane project, designing system to provide network operators with layer 2 access to thousands of network devices, significantly improving ease and efficiency of device configuration
- Communicated effectively with a team of engineers, providing relevant & helpful code review and working through challenging problems collaboratively

FogPharma, Cambridge, MA   January 2021 - July 2021
Data Engineering Co-op
- Developed and shipped data analysis pipeline, shifting all internal computation from an on-premises server to the cloud and decreasing data processing time from days to minutes using parallelization
- Implemented and executed ETL scripts to normalize complex, heterogeneous Excel data into a scalable, organized, and optimized SQL database with tens of millions of rows
- Designed and implemented full-stack data search application, allowing scientists to search, filter, browse, visualize, and interact with company data previously only available via thousands of Excel sheets

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PERSONAL PROJECTS

Daily Movie Game Web Application
- Designed and built a dynamic and performant movie-centered web application, where users must find a path in the movie-actor graph between two given films
- Integrated application with third-party API for actor and film data, caching results with Redis to maximize performance
- Leveraged Node.js, MongoDB, and a Redis cache for a simple and performant backend

Expense-Tracking Web Application
- Built MongoDB-backed REST application(Express.js, Node.js) to manage my personal expenses, including robust data visualization on a front-end application
- Deployed application to Heroku to add expense data and view data visualizations via my cell phone and other devices
- Integrated JWT authentication and authorization to protect data and scale to multiple users

Machine Learning Photo Watermarker
- Built steganographic "watermark" tool using machine learning, subtly altering photos by adding a robust and invisible watermark
- Leveraged Python(Tensorflow, Flask), and Javascript(React) to build the tool

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SKILLS & INTERESTS

- Interests: movies, cooking, networking, distributed systems, end-to-end feature ownership, and learning
- Skills: self-motivated, productive, personable, collaborative, goal-oriented, and hardworking