Brian **Thompson**

SOFTWARE DEVELOPER ENGINEER · MASTERS IN COMPUTER SCIENCE

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Work Experience

Amazon   *Seattle, WA*
SOFTWARE DEVELOPER ENGINEER 2 ON AMAZON BUSINESS PERSONALIZATION   *July 2018 - PRESENT*
- Implemented and ran 27 A/B experiments throughout the website for Business customers.
- Total experiment wins resulted in an increase of $455 million annualized order purchase sales (OPS)
- Experimentation Bar Raiser for Personalization (Have reviewed over 120 experiments since 2021)
- Migrated front-end rendering of team's recommenders to new platform built on TypeScript and Kata (html templating language)
- Implemented multiple recommenders using Python for daily data builds and Java for online processing
- Tech lead for improving pricing discovery for business discount programs throughout the site
- Led work streams for wholesale theme for AB Personalization roadmap throughout 2021 and 2022
- Coordinated all personalization efforts for 2022 Small Business week event world-wide. Event drove $485MM in OPS
- Created first Sponsored Products + organic recommendation blend with business discount programs
- Tech lead for customizing Buy Again Page for Amazon Business customers - 2023
- Built out client and server logic for numerous discount UX features for recommenders on home, detail and buy again pages (TypeScript)
- Created daily builds which compute item similarities and best sellers using various AWS technologies
- Develop features and maintain operational health of our Remote Strategy Service (Coral service built on Apollo and Amazon Linux 2)

Capless   *Chicago, IL*
[STARTUP] CHIEF DATA OFFICER   *June 2021 - June 2023*
- Platform that allows startups to intelligently find investors for funding (https://capless.ai), team of three
- Accepted into Product 10X Accelerator (https://product10x.com/startups/)
- Applied to Y Combinator Summer 2022 Batch and advanced to interview stage
- Created graph-based algorithm and visualization tool to help find co-investors, using Crunchbase investments data
- Created online platform and built out Feed, Profile, Messaging pages
- Technologies used: React and D3 for front-end and graph visualization, AWS tools like lambda, S3, Amplify, Cognito and CDK for backend

Ag-Sensus, LLC   *Champaign, IL*
iOS DEVELOPER FOR DJI DRONE AGRICULTURE SOLUTIONS   *Oct. 2016 - May 2018*
- Computed waypoints given a field boundary that guide the drone through flight while it takes measurements
- Wrote code in C++ and Swift that measured crop height via LIDAR in a DJI manifold, sent to the iPad and overlaid the height graph on a map
- Designed and implemented a user interface allowing farmers to analyze past flight data from multiple fields

The Boeing Company   *St. Louis, MO*
SOFTWARE ENGINEER INTERN ON THE F-15 TRAINING SYSTEMS AND SERVICES TEAM   *Summers of 2015 and 2016*
- Modified and enhanced F-15 3D model with Blender and imported into X-Plane to be used with the F-15 Trainer
- Rewrote X-Plane plugin written in C++ to receive standardized network packets created by Boeing instead of custom messages

Education

University of Illinois   *Urbana-Champaign*
BS AND MS IN COMPUTER SCIENCE   *Aug. 2013 - May. 2018*
- Computer Science student in the College of Engineering
- Undergrad GPA: 3.83, Graduate GPA: 4.00

RELEVANT COURSEWORK
- Algorithms and Models of Computation, Systems Programming, Data Mining, A.I., Applied Machine Learning, Communication Networks, Computational Photography, Computer Vision, Virtual Reality, Social Sensing, Interactive Computer Graphics, Scientific Visualization, Real-time and Cyber-physical Systems, Embedded Systems

Projects

iOS Apps and Chrome Extensions

HTTPS://GITHUB.COM/BRIANRT
- **Text to Buzz:** Connects via Bluetooth to a Neosensory Buzz (wrist band with four motors) and maps words to distinct patterns
- **Visaural:** Takes frames from a video and converts to a distinct sound using spectrograms, allowing to "see" through audio
- **Line Times:** App which used crowdsourced entries to display wait times at restaurants and bars on UIUC campus. Swift + Firebase for backend
- **Time to Decide:** App which allows daily tracking and graphing of simple decisions
- **CEO Hunter Chrome Extension:** Allows users to retrieve the CEO and their email from a provided company, 700+ users.

Skills

Languages and Tools   Python, Java,Swift, TypeScript, Spark SQL, Ruby, C++, AWS, Firebase, React, D3.js, XCode