Stephen Joe Jonany

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Summary. Seasoned software engineer with a decade of industry experience with various tech lead roles at big companies. Very comfortable with reading math-heavy research papers and translating them to customer-facing products and research side projects: second-author Google Brain arxiv, differential privacy (Snowflake post), transformers and computational neuroscience (human recall, worm neurons). Decent computer science background as an undergrad - got an outstanding senior award for academic excellence with a theory-heavy course work.

Professional Experience:

Snowflake *Senior Software Engineer* 2022-2024

As a member of the data privacy team, I designed and implemented various components of k-anonymization, differential privacy, and classification. I was also the tech lead for AI-powered object description and carried it from inception to private preview. Keywords: LLM, statistics.

Google Kirkland *Senior Software Engineer* 2016-2019, 2019-2022

Led Chrome device management commerce team (3 SWEs) for efforts that increase the purchase of Chromebook management licenses, and be the gatekeeper of the management functionalities.
Under the efforts to increase license sales, I helped launch buyflows that enable users to signup for trial and purchase management licenses. 2 efforts: Admin console buyflow Kiosk trial.
On Aug 2019, we launched the first license packaged Chromebook, which allows manufacturers like Dell to bundle Chromebook management licenses with hardware.
Under gatekeeping, I designed and built the following systems that performed the following:

- Provision customers' accounts in response to license purchases through online & offline channels.
- Service that all management services (API, admin console, etc.) contact to inquire about eligibility.
- Punish and cleanup customers on license expirations, thus enforcing GDPR compliance.

Google Fremont *Software Engineer* 2015 (L3)

As a member of the Google Compute Engine team, I helped build the backend that provides each the Google Cloud Developer console with a history of the project activities.
E.g. "abc@google.com turned down a VM at 4pm".

University of Washington, Seattle *Graduate Research Assistant* 2013-2014

Under the supervision of Professor Dan Weld.
Thesis: *Crowdsourcing the Creation of Expert-Annotated Named Entity Dataset*
Create Named Entity Recognition datasets by aggregating crowdsourced annotations to a pipeline of simple tasks along with behavioral traces.

Google *Software Engineer Intern* 2013

Built a multiclass classifier for categorizing feedback reports into different products.
E.g. "I can't see my liked videos" reported under the Chrome browser feedback tool should instead be rerouted to the Youtube team.

University of Washington, Seattle *Undergraduate Researcher* 2012-2013

Under the supervision of Professor James Fogarty.
Thesis: *Instance-Based Recognition of Screen-Rendered Text in a System for Pixel-Based Reverse-Engineering of Graphical Interfaces*
Built an OCR designed specifically for recognizing low-resolution screen-rendered text.

Educational Summary:

University Of Washington, Seattle, WA Sep 2019 – July 2021
M.S. AMATH, focus on computational neuroscience GPA: 4.0
Quit w/ 1 quarter left to rejoin Google.

University Of Washington, Seattle, WA — Sep 2013 – Dec 2014
M.S. Computer Science & Engineering — GPA: 3.98
Advisor: Professor Dan Weld
Thesis: Crowdsourcing the Creation of Expert-Annotated NER Dataset

University Of Washington, Seattle, WA — Sep 2011 – Jul 2013
B.S. Computer Science & Engineering — Dean's List, GPA : 4.0
Advisor: Professor James Fogarty
Thesis: Instance-Based Recognition of Screen-Rendered Text

Technical Proficiency:
Main Programming Language: Java
With experience in: Python, C++, Javascript, and more.

Publications:
Gillard et al. ***Unified Functional Hashing in Automatic Machine Learning (Arxiv 2022).*** I contributed to Google Brain research projects in my 20%, and I am the second author of this paper. This paper is about a technique that is broadly applicable to evolutionary-search-based programming synthesis.

Projects:
C Elegans parameter sensitivity study 2019
Reproduced a computational model of C elegans' full-connectome neural activities, and investigated the robustness of previous findings to parameter perturbations.
Done in a group of 3 as part of AMATH 522: Computational modeling of biological systems.
Github: https://github.com/sjonany/c-elegans-interactome-analysis.

Summer Workshop on the Dynamic Brain 2019
A summer camp on computational neuroscience hosted by Allen Institute for Brain Science and University of Washington. Teamed up with Ali Hamodi from Yale to analyze orientation selectivity in mouse visual cortex. 2019

Awards and Honors:
Amazon Programming Contest @ UW 2014
Solve a set of programming problems within an hour. 1st place.

Outstanding Computer Science Senior Award (University of Washington, Seattle) 2013
Two graduating computer science seniors were awarded in 2013 for exceptional undergraduate academics.

ACM International Collegiate Programming Contest (ACM-ICPC) 2013
UW Local ACM Qualifier 2013: 1st Place (Team UW Sonic)
Pacific Northwest Regional 2013: 8th Place (Team UW Sonic)