

# ALVIN CHIN

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## PROFESSIONAL SUMMARY

- Expert Researcher and Data Scientist with experience in leading research and development projects that translate business requirements into tangible software prototypes and products.
- PhD in Computer Science, Masters in Software Engineering and Bachelors in Computer Engineering
- Strong research skills with over 60 publications in reputable academic conferences and journals and over 17 published patents.
- Strong project management and team leadership skills with experience leading teams in industry and professional volunteering organizations such as Association of Computing Machinery (ACM) Chicago Chapter, and Institute of Electrical and Electronic Engineers (IEEE) Chicago Section.
- Strong software engineering and technical skills in machine learning, data science, analytics, statistics and cloud computing

## PROFESSIONAL EXPERIENCE

**UNIVERSITY OF ILLINOIS CHICAGO, DEPT OF INFORMATION AND DECISION SCIENCES, UIC BUSINESS** **8/2025 to Present**

### **Visiting Clinical Assistant Professor**

- Teach undergraduate business students in Introduction to Business Information Management Systems, AI Essentials for Business, and Causal Inference.
- Lead research as PI into inferring human social behaviors and discovering connections from offline encounters at physical events, and research in establishing policies and frameworks on responsible AI.
- Organize and participate in AI events and panels in UIC Business

**DISCOVERY PARTNERS INSTITUTE, Chicago, IL**

**12/2023 to 8/2025**

### **Research Scientist**

- Led research as PI into inferring human social behaviors and discovering connections from offline encounters at physical events to improve social networking using big data, IoT, AI and social computing.
- Led a Responsible AI in FinTech event with leaders in industry and academia, lead research as PI into Generative AI and Responsible AI for digital learning and workforce development, awarded NAIRR project on Certification of Generative Responsible AI Models. Co-wrote an opinion editorial article with Prof. Lav Varshney (UIUC) on safe AI in the Chicago Tribune.

**XPO LOGISTICS AND RXO, Chicago, IL**

**9/2022 to 6/2023**

### **Principal Data Scientist**

- Led two junior data scientists for developing and implementing index-based pricing algorithm in Google Cloud using Vertex AI, BigQuery, Cloud Function, Cloud Run and Pub Sub, for recommending baseline rates for shipping loads for customers based on index rates like DAT. Delivered first version of index-based pricing to production.
- Managed collaboration of data science projects for index-based pricing and customer pricing of loads with stakeholders from Operations team, Pricing team, Data Science team and Engineering team.

**BMW GROUP, Chicago, IL; Mountain View, CA; Greenville SC**

**4/2015 to 8/2022**

**Innovation Research Engineer, BMW IT Research Center, BMW Manufacturing, Greenville, SC**

**7/2022 to 8/2022**

- Explored research into metaverse, large language models, causal machine learning, and technology scouting and innovation.
- Led collaboration with UC Berkeley AI Research Lab in causal machine learning, human-centered AI to improve customer driving experience, and human-in-the-loop reinforcement learning for robotic manipulation skills.

**AI & Emerging Technology Researcher, BMW Group Technology Office USA, Mountain View, CA**

**11/2020 to 06/2022**

- Explored research on causal machine learning and complexity management for managing supply chain, and performed technology scouting and innovation.
- Led collaboration with UC Berkeley AI Research Lab in causal machine learning, human-centered AI to improve customer driving experience, and human-in-the-loop reinforcement learning for robotic manipulation skills.
- Evaluated Microsoft Azure AI for democratizing AI to support business analysts and for creating AI models to detect damaged car parts.

**Senior Machine Learning Researcher, BMW Technology Corporation, Chicago, IL**

**4/2015 to 11/2020**

- Analyzed BMW car data using big data analytics and machine learning for predicting destinations and user behavior.
- Built deep learning model for predicting pre-ignitions; created customer EV charging behavior profiles; evaluated bi-logistic regression model for predictive preconditioning which was implemented in production in BMW Connected.
- Developed data collection innovations for improved journey management

**NOKIA AND MICROSOFT, Beijing, China**

**7/2008 to 9/2014**

**Senior Researcher and Product Owner**, Xpress Internet Services, Nokia Mobile Devices, Beijing, China

**9/2012 to 9/2014**

- Improved product by publishing ten patents, one journal paper, and one full conference paper on efficient personalized recommendation of mobile web content from Nokia phones using an Expectation-Maximization-based clustering method.
- Guided an agile development release plan as Product Owner for the backend machine learning system of Nokia Xpress Now, a content news recommendation platform for Nokia and Lumia phones.
- Coordinated research project with Northwestern Polytechnical University in Xian, China about identifying events using trending keywords in Sina Weibo (Chinese Twitter) - delivered one full conference paper.

**Senior Researcher**, Nokia Research Center, Beijing, China

**1/2010 to 8/2012**

- Led R&D team of 10 people in Find & Connect, a system for finding rooms and recommending people to connect with from the office and conferences using a weighted-average recommendation algorithm based on physical proximity and homophily. This resulted in 3 patents, 7 workshop papers, 5 conference papers, 4 journal papers and 1 book chapter.
- Led R&D team of 8 people with development of mobile application for activity-based social networking and connecting people from offline to online, resulting in 1 workshop paper and 1 conference paper.

**Research Staff Member**, Nokia Research Center, Beijing, China

**7/2008 to 12/2009**

- Researched Mobile Web 2.0 and social networking technologies for integrating the phone with online and offline social networks, and created technical paper which directed the focus of the lab. Wrote a paper based on analyzing the evolution of a friend mobile social network created from Nokia Friend View, using the cohesive subgroups method (based on social network analysis and k-plex clustering analysis) adapted from PhD work.
- Led R&D team of 10 people for Find & Connect, which was deployed in 3 Nokia offices.

### TECHNICAL SKILLS

- Programming Languages: C, C++, C#, Java, JavaScript, Swift, Python, Powershell, Scala
- Development Tools: Microsoft Visual Studio and Visual Code, Apple XCode, Anaconda, Jupyter Notebooks, RStudio, PyCharm
- Big Data, Cloud & Databases: Hadoop, AWS, SQL Server, SQL, MySQL, U-SQL, Microsoft Azure, Azure Data Lake Analytics, Azure Databricks, Azure Kubernetes Service, Google Cloud, BigQuery, Google Cloud SQL
- Data Science tools & Platforms: Matlab, SPSS, RStudio, R, H2O.ai, Snowflake
- Machine Learning: Keras, scikit-learn, Tensorflow, Azure Machine Learning, PyTorch, Microsoft AI Builder, clustering, regression, causal machine learning, Google Cloud Vertex AI
- DevOps & AIOps: Elasticsearch, Kibana, Dynatrace, Terraform
- Analytics & Visualization: Microsoft Power BI, ESRI ArcGIS, Grafana, Google Looker

### PROFESSIONAL AND VOLUNTEER LEADERSHIP

**MEMBER OF CHICAGO AI ADVISORY COUNCIL, AI 2030**, Chicago, IL

**7/2025 TO Present**

**MEMBER OF IGPA SCIENCE AND TECHNOLOGY GROUP, IGPA, UNIVERSITY OF ILLINOIS SYSTEM**

**7/2025 TO Present**

**MEMBER OF BOARD OF GOVERNORS, THE METROPOLITAN CLUB**, Chicago, IL

**1/2020 to Present**

**ASSOCIATION OF COMPUTING MACHINERY (ACM)**, Chicago, IL

**1/2020 to Present**

**Senior Member, Chair of ACM Chicago**

**INSTITUTE OF ELECTRICAL & ELECTRONIC ENGINEERS (IEEE)**, Chicago, IL

**1/2018 to Present**

**Senior Member, Past Chair IEEE Chicago, Chair IEEE Computer Society Chicago, Chair Vehicular Tech Society Chicago**

**DEPAUL UNIVERSITY**, Chicago, IL

**1/2019 to 12/2023**

**Adjunct Professor, College of Computing & Digital Media**

**MEMBER OF TORONTO CHICAGO SISTER CITIES COMMITTEE**, Chicago, IL

**1/2016 to Present**

### EDUCATION

**Doctor of Philosophy (PhD)**, Computer Science, University of Toronto, Toronto, Ontario, Canada

**Master of Applied Science (MASc)**, Software Engineering, University of Waterloo, Ontario, Canada

**Bachelor of Applied Science (BASc)**, Computer Engineering, University of Waterloo, Ontario, Canada

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For list of publications, patents, awards and service, please refer to my extended CV at [www.alvinychin.com](http://www.alvinychin.com), click My CV.