Andy Chung

heyandy@umich.edu
4848419191
chung01

Education

Overall GPA 3.93/4.0

University of Michigan Aug 2023 – 2028
Computer Science (PhD) *Ann Arbor, MI*

Georgia Tech Jun 2015 – Dec 2018
Computer Science (BS) *Atlanta, GA*

Georgia Tech Aug 2006 – Dec 2011
Psychology (BS) *Atlanta, GA*

Relevant Coursework

- Machine Learning Foundations
- Large Language Models Foundations
- Natural Language Processing
- Advanced Data Mining
- Causal Machine Learning
- Reinforcement Learning

Research Experience

University of Michigan Research Assistant Aug 2023 - Present
Situated Language and Embodied Dialogue Lab *Ann Arbor, MI*
- Conducting research at the intersection of Large Language Models and autonomous agents.

Tokyo Institute of Technology Summer Research Assistant Summer 2018
MIUBIQ Lab *Tokyo, Japan*
- Developed an indoor localization app using RSSI and K-nearest neighbors algorithm.
- Demoed the working app to the research team and at final presentations.

Professional Experience

Algoverse Director AI Jun 24 – Present

- Provided high level direction and consultation on the development of LLM based agents.
- Provided feedback on various papers submitted to the Neurips high school track

Nike Valient Labs Data Scientist Apr 23 – Present
Project Move
- Lead research initiatives from the data science perspective for new AI coaching engine.
- Built models to predict RPE using proprietary underfoot sensor data with RMSE of 0.5 (out of 10 scale)
- Performed EDA on terabyte scale customer behavior data to surface most profitable user segments.

Fellowship.ai Data Scientist Jan 23 – Apr 23
Fashion Image Modification Team
- Developed fine-tuning pipeline for image editing with Stable Diffusion.
- Worked with SOTA models to develop new features such as Virtual Try On.
- Led a data science team and coordinated tasks.

Amazon Software Development Engineer Jan 19 – Jan 22
Automated Marketing *Seattle*

- Worked closely with data scientists to design and implement end-to-end a content validation model that processes over 50 million unique datapoints per month.
- Developed a backtesting method to validate model results.
- Implemented using AWS Kinesis and Firehose to automatically label streaming data as they come in.

Virtual Try On *New York, NY*

- Designed and implemented end to end a deployment pipeline using Sagemaker that deploys a machine learning model into production. Demoed to SVP of Amazon. (2 levels below Jeff Bezos)
- Generated datasets for applied scientists reducing model error by 20%
- Designed and implemented a custom deployment pipeline automating 100s of hours of dev work
- Designed a selection algorithm using nearest neighbors exceeding customer satisfaction goals (expected 70%, got 83%)

Amazon Go *Seattle, WA*

- Implemented a new camera selection strategy reducing error rates by over 50% and covering more edge cases.
- Refactored and modularized deprecated designs allowing easy implementation of new workflows.
- Implemented a new tier 1 API that will be serving over 3 million requests per day.

Alexa Smarthome *Seattle, WA*

- Built, tested, and pushed into production two new customer facing projects for Alexa.
- A/B testing complete and available to 800,000 Alexa customers.
- Found and fixed bugs/edge cases outside immediate scope.
- Developed new code flow and refactored deprecated designs and wrote detailed design documents describing updated changes.
- Created automated testing suite to be used by all of Alexa SmartHome.

Blackrock Summer Analyst: Software Engineering Summer 2017

Trading Analytics Team *San Francisco, CA*

- Built a machine learning toolkit that uses various classifiers to predict investment returns.
- Developed a machine learning model that was able to predict excess returns with a 64% accurracy
- Scraped Fed statements and performed sentiment analysis to test their correlation with S&P closing prices.

Verizon Software Engineer Intern Summer 2016

FiOS team *Temple Terrace, FL*

- Built a cross-platform native mobile app that provides realtime updates to contractors.
- Used by 500+ enterprise users and estimated to save at least $3.9M annually in costs.
- Built in C# on the Xamarin platform in an Agile environment with a global collaborative team.

Awards & Honors

NSF CSGrad4US Fellow $138000
NSF *2022*

JASSO Scholarship $4000
JASSO *2018*

Academic Excellence Scholarship $3000
Georgia Tech *2011*

PURA $1500
Georgia Tech *2010*

Specialized Skills

Programming Languages: Python
Science: Pytorch, Huggingface, Pandas
Cloud: Databricks, Pyspark, Various AWS services incl. EC2, Sagemaker, ECR, Kinesis, Lambda, Cloudwatch, S3, EMR

Other Experience

Jane Street Electronic Trading Challenge *Summer 2017*
- Developed an automated trading algorithm that parsed a custom exchange protocol and competed against others in a simulated market.

Chef Assistant *Spring 2017*
- Developed an Alexa skill that reached 650+ unique users with 6000+ invocations.

PennApps: University of Pennsylvania *Spring 2017*
- Developed an Android app that lets users book parking spaces and allows owners to list their parking spaces.

HackTech: CalTech *Spring 2017*
- Built voice controlled Roomba that detected obstacles and attempt to move around it with your guidance.

MHacks: University of Michigan *Spring 2016*
- Developed an Android app that lets users book parking spaces and allows owners to list their parking spaces.
- Won overall 3rd place.

Capital One Summit for Software Engineers *Spring 2016*
- Built a website that fetches data from Instagram posts and performs sentiment analysis to determine whether they are positive, negative, or neutral.
- Invited to attend a week long software engineering summit hosted by Capital One where we learned about AWS, Parse, M.E.A.N stack, Photon, iOS, WebGL, and Android.

HackDuke *October 2015*
- Developed a webapp that lets you take notes via voice recognition.
- Formats and highlight notes for you in realtime and allow you to export it in pdf or txt format.
- Won 1st place

Teaching Assistant *Spring 2008*
- Lead weekly recitations and held office hours to reinforce concepts of course materials.
- Graded homework assignments/exams, proctored exams, and developed questions for exams.

Other Interests

What's in a Doctors Bag Founder/President.
Co-author of a published paper on peripheral nerve regeneration.
Helped develop curriculum for a high school hackathon