Gabriel Chapman (Chappy) Asel

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EXPERIENCE

Sep '21 – Present	**Apple** – AR/VR Software Engineer	**Sunnyvale, CA**

- Team: TDG – AR/VR Group – Frameworks Team

Jul '20 – Sep '20	**Apple** – AI/ML Software Engineering Intern	**Seattle, WA**

- Conducted a user study to answer key questions and determine metrics for eye tracking on mobile devices
- Implemented an algorithm for dynamic eye tracker recalibration based on existing system interactions
- Designed a system for pre-loading asynchronous content using interest prediction derived from gaze data
- Demoed a proof-of-concept of intelligent UI element selection, leveraging gaze data and voice input
- Created a reusable iOS launch daemon for study control and data collection in future studies within Apple
- Developed a modular iOS gaze framework, facilitating the development of future gaze-powered experiences
- Presented my project's findings to organization executives and team leads with positive reception

Jan '20 – Mar '20	**Facebook** – Software Engineering Intern	**Menlo Park, CA**

- Designed new system-wide interfaces and notification flows to enable relevancy- and permissions-based forwarding to a profile's assigned administrator roles for a major upcoming product release
- Collaborated with multiple teams to design these new features to fit well with existing infrastructures
- Implemented these additions on both the backend (Hack, GraphQL) and frontend (JavaScript) first using a mock API and switching to the real API upon completion. Also created extensive unit & integration tests
- Worked with the QA team on performing a notification audit to ensure intended product behavior

Sep '19 – Dec '19	**Xevo** – SDE I - AI UX (part-time)	**Bellevue, WA**
Jun '19 – Sep '19	– SDE Intern	

- Collaborated with the data science team on in-house tools to congregate and visualize user telemetry data
- Worked on developing SQL/Python transformation scripts and jobs to transform raw user telemetry into tangible data points for future use predictive machine learning models
- Designed and implemented a Snowflake/AWS pipeline to take processed telemetry data and determine user points of interest via a reverse geocoding service running periodically on a Node.js Lambda
- Developed a DBSCAN-esque MySQL clustering algorithm to generate high-order insights (patent pending)
- Gained experience in Snowflake, AWS, Python Flask, Terraform, Docker, K8S, Mixpanel, and more

Jun '18 – Sep '18	**Lime** – Software Engineering Intern	**San Francisco, CA**

- Led a complete redesign of the iOS app UI, unifying and simplifying the company design language
- Implemented a persistent rating system, increasing usage by 15% and enabling new performance metrics
- Refreshed the in-app referral system to use Branch.io deep links, increasing key user acquisition metrics
- Led design and implementation efforts of a backend-driven animated 'how to ride' screen, allowing for per-region rules and regulations and helping the government relations team meet per-city requirements

PROJECTS

Aug '17 – Present	**Weightlifting App** – iOS App Store	

- Tracks and analyzes users' workouts using Amazon Web Services, Core Data, and more
- Developed a Node.js backend running on AWS EC2 for app leaderboards, feedback, user backups, etc.
- Designed a Keras deep neural network (exported to CoreML) to predict user workout names
- 30k+ installs, 3k+ MAU, 4.7 star rated, top-10 weightlifting app

Aug '16 – Jan '19	**Homework App** – iOS App Store	

- Organizes, keeps track of, and reminds users of upcoming homework. Acquired by Haystack AI on 1/23/19
- Upon acquisition: 338k installs, 63k MAU, 4.7 star rated, #1 global homework app, top-60 productivity app

EDUCATION

2017 – 2021	**University of Washington**	**Seattle, WA**

Graduate at Paul Allen School of Computer Science & Foster School of Entrepreneurship Minor.
Graduated with *magna cum laude* honors – top 3.5% of class. Major GPA: 3.84; Cumulative GPA: 3.87

2013 – 2017	**Thomas Jefferson High School for Science & Technology**	**Alexandria, VA**

Nationally ranked magnet school. Developed semi-autonomous go-kart in senior Automation & Robotics lab.
Courses include: AP CS (5), Artificial Intelligence I & II, Analog & Digital Electronics; ACT: 33, GPA: 4.3

SKILLS

- Programming capability in Objective C, Swift, JavaScript/TypeScript, Python, Java, C/C++, PHP/Hack, SQL, HTML/CSS
- Proficient with GitHub/GitLab/Bitbucket, Jira, Slack, Adobe CC (Photoshop, Illustrator), Google / Microsoft Office Suites
- Experience with AWS (S3, DynamoDB, Lambda, IAM etc.), GCP (Compute, Datastore, Endpoints etc.), Snowflake, Terraform

PERSONAL

- Boston & DC sports fan, five-time Tough Mudder finisher, two-time century bike finisher, occasional mountain climber
- Brother at Delta Tau Delta – Gamma Mu chapter, four-year high school basketball player, avid weightlifter and nutritionist