

Programming Languages and Tools

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Uber ATG

SJSU SAN JOSÉ STATE
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Agenda

01 Introduction

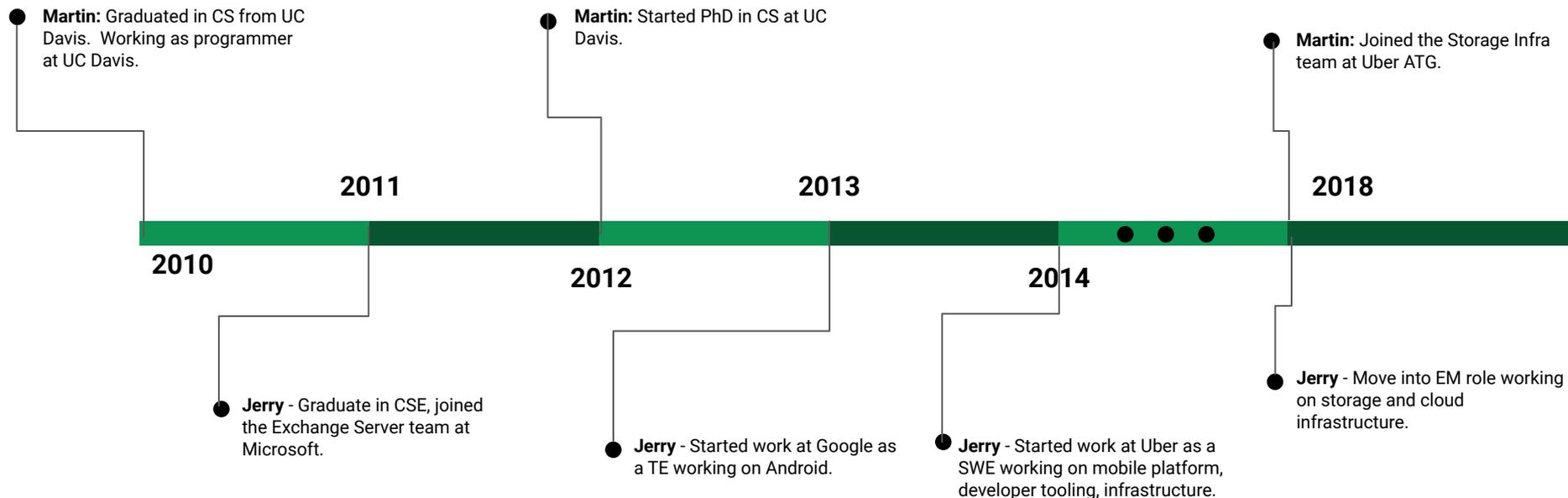
02 Self-Driving

03 Programming Languages

04 Tools

05 Q&A

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ATG Mission

Introduce self-driving technology to the Uber network in order to make transporting people and goods safer, more efficient, and more affordable around the world.







Controls
Motion Planning
Prediction
Perception
Sensors
HD Map and Localization





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Scripting

Master Bash Scripting



Master Python Scripting



Complex Programs

Microservices are written in Go.



A lot of libraries and compute jobs are written in Python.



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Tools

- Version Control - Git
- CI/CD - Jenkins, BuildKite, Spinnaker, etc.
- IDE - PyCharm, VS Code
- Issue Tracking - Phabricator, Jira, ZenReach, Asana
- Storage - MySQL, Cassandra, Redis, Kafka, HDFS, Lustre
- Compute - Kubernetes, Piper, Hadoop
- Infrastructure - Artifactory, Packer, Docker, Kraken
- Infrastructure as Code - Puppet, Terraform
- Cloud - AWS, GCP



Q&A

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