All right, hey everyone, welcome back to Coding Temple's Agile Leaders. We help product and tech leaders execute and innovate in these rapidly changing times with more confidence and velocity. I'm your host, Evan Shye. Today we are joined by my friend, Greg Lachnane, the

co-founder
and
CEO
of
AI
Maker
Space,
where
him
and
his
incredible
team
are
building
the
world's
leading
community
for
building
production
LLM
applications.
So
this
episode
is
for
the
technologists
out
there
looking
to
push
the
bleeding
edge
of
AI
in
their
organization.
Thank

you
so
much
for
being
here,
Greg.
Yeah,
thanks
for
having
me,
Evan.
It's
awesome
to
be
here
with
you.
Well,
I
have
the
pleasure
of
knowing
a
little
bit
about
your
background
and
how
impressive
it
is
and
why
you
are
my
go-to
source

for
everything
related
to
AI,
but
maybe
you
can
share
a
little
bit
about
your
journey
with
the
audience
here.
Yeah,
you
know,
in
2015,
I
graduated
with
my
PhD.
It
was
an
optimization
at
the
time.
And
part
of
the
reason
I
even
got

it
was
because
I
kind
of
loved
teaching.
And
I
started
doing
that
as
an
undergrad.
So
quickly
kind
of
came
out
of
school,
got
into
government
contracting,
consulting
and
started
work
with
teams
to
commercialize
tech.
And
that
kind
of
led
me
into
liking

the
startup
vibe
more
than
the
big
companies.
And
I
found
it
was
very
hard
to
make
money
with
research.
And
even
though
I
started
to
do
some
consulting
outside
of
government
contracting
with
actual
startups,
I
found
it
was
really
still
hard
to
make

money
with
AI
at
the
time,
16,
17,
18.
And
I
started
doing
a
lot
of
sort
of
just
research
for
the
CTO
and
you're
kind
of
taking
this
work
that
you
do
and
you're
thrown
it
over
the
wall
of
the
engineering
team
and

it
often
dies
on
the
mind.
You
know,
this
kind
of
pushed
me
more
and
more
towards
trying
to
get
inside
and
build
something
with
a
team
towards
product
management.
So
I
kind
of
went
and
I
went
to
entrepreneurship
school,
dabbled
in
some
startups

that
weren't
mind
all
along
I'm
teaching
and
then
COVID
hits.
And
I
realized
like,
man,
online
teaching
and
learning
is
like,
this
is
like
the
future.
I
like,
I
have
got
to
get
into
this.
I've
always
loved
teaching.
It's
never
really
paid,
but

I
got
the
feeling
at
the
time
this
is
what
I
should
be
focused
on.
2020
actually
take
a
full
time
job
teaching.
So
I'm
teaching
five
days
a
week.
I'm
trying
to
become
like
the
best
at
online
teaching
and
learning.
And
you
know,

it
was
a
big
opportunity
because
still
most
people
have
never
been
to
a
Zoom
room.
That's
like
really,
really
well
run.
It's
not
like
a
thing
that
people
have
experienced.
But
it
can
be
done.
And
you
know,
this
is
something
I've
been
working

on
for
the
last
four
or
five
years.
I
tried
to
launch
a
course
back
then
teaching
people
3D
printing.
It
was
a
disaster.
I
don't
really
know
what
I
was
doing.
Headed
out
to
Silicon
Valley
to
sort
of
learn
startups,
learn
the
industry

of
EdTech,
understand
boot
camps.
It's
kind
of
got
me
into
a
role
at
the
company
called
fourth
brain,
which
is
very
close
to
deep
learning
AI
and
got
me
kind
of
close
to
a
lot
of
people
that
are
kind
of
at
the
top

of
the
industry.
I
looked
around
and
I
realized
like
this
is
what
I
want
to
be
doing
building
these
boot
camps,
but
this
sort
of
VC
product,
VC
backed,
EdTech
boot
camp
business
model.
It's
not
quite
right.
And
so,
you
know,
after
Chad

GBT
came
out,
2023,
I
realized,
man,
this
is
the
year.
I
want
to
do
this
a
little
bit
better
than
I've
ever
seen
anybody
do
it.
This
kind
of
led
to
what
AI
maker
space
has
become
today.
So
we're
building
boot
camps
out

on
the
edge
of
what's
possible
with
open
source.
And
that's
LLM
today
in
production.
I
love
it,
man.
I
knew
there
were
some
similarities
in
our
journey,
but
I
didn't
quite
appreciate
how
much.
I
guess
I've
been
an
entrepreneur
my
entire
career,
but

did
some
time
in
an
academia,
a
few
of
us
in
a
PhD
program
and
was
publishing
research
and
realizing
how
far
of
a
distance
or
golf
there
was
between
the
work
we
were
publishing
and
the
impact
I
was
having
on
people's
lives
and

ended
up
starting
trying
to
do
skill
development,
building
applications
to
deliver
to
that
skill
development,
to
make
a
bigger
impact
in
people's
lives.
And
then,
you
know,
a
lot
of
philosophical
alignment
in
terms
of
how
can
we
do
that
better
and
ultimately
brought

both
of
us
here,
I
think.
Were
there
any
skills
that
were
kind
of
most
transferable
from
that
past
life
into
more
of
the
operator
seat,
product
leader
seat?
Yeah,
I
mean,
you
know,
I
think
when
I
look
across
all
of
it,
it's
kind

of
like
this
willingness
to
sort
of
like
attack
one
thing
as
hard
as
you
can
at
each
period.
So
it
kind
of
is
like
resilience
is
number
one.
It's
kind
of
like
cookie
cutter
thing,
but
like,
you
know,
like
I
was
deeply
under

employed
for
long
stretches,
you
know,
throughout
this
journey.
And
it's
just
part
of
like
continuing
to
just
smash
the
grind.
But
each
sort
of
skill
I
learned
a
long
way,
like
doing
research,
very
important
if
you're
going
to
do
consult
things,
right?
And

then
building
a
startup,
actually
the
way
you
build
it
out
to
begin
with
and
find
product
market
fit
and
figure
out
what
you
should
be
building
is
kind
of
through
consulting.
And
so
like,
you
know,
each
of
these
things
kind
of
stacks
on

each
other.
And
then
it
was
very,
very
helpful
to
go
sort
of
get
the
broad
perspective
of
entrepreneurship
school,
dabble
a
little
bit
of
this
and
that.
And
then
as
a
CEO,
I'm
finding
I
go
back
to
some
of
that,
you
know,
okay,

I
have
a
CFO
day.
I
got
to
go
pick
up
how
to
actually
do
the
balance
sheet
stuff.
Okay,
I
have
this
kind
of
day.
And,
you
know,
I
think
that
that's
been,
it's
just
kind
of
all
come
together
because
the
startup
CEO

is
kind
of
an
everything
job.
So
you
kind
of
have
to
stack
it
one
piece
at
a
time.
Amen,
man.
Even
something
as
seemingly
singularly
constrained
to
science
or
research,
but
just
the
scientific
method
or
running
experiments
appropriately
and
developing
hypotheses.
And
it

always
doesn't
have
to
be
this
like
perfectly
elaborate
experiment,
but
even
just
thinking
in
ways
where
you
can
actually
test
hypotheses
or
expose
where
you're
wrong.
I
think
is
a
useful
thing
for
a
lot
of
entrepreneurs
who
are
trying
to.
That's
right.
And

I
think
like
I've
talked
to,
you
know,
mentors
of
mine,
whatever,
it's
like
this
idea
that
what
is
your
hypothesis?
Because
the
thing
about
business
is
like,
you
have
to
figure
out
what's
true
about
your
customers,
you
have
to
figure
out
what's
true

about
what's
going
wrong
in
your
company.
And
it's
like,
it's
like
the
opposite
of
sort
of
like
getting
emotional
about
it
and
whatever
you
feel
about
it.
And
so
you've
got
to
be
able
to
say,
okay,
and
the
decision
making
framework
of
the

hypothesis
is
very
useful
because
otherwise
like
if
you're
trying
to
think
about
everything
and
how
it
engages
in
interacts,
like
you
can't
make
any
decisions.
It's
like
this
hypothesis,
this
is
how
I'm
going
to
test
it.
You
know,
it's
very,
very,
it's
exactly

that
in
business.
Yeah,
that
you
have
to
have
a
scientific
method,
you
know,
let's
get
to
the
truth
as
fast
as
possible
because
we're
going
to
get
there
one
way
or
another
and
like
that's
not
pay
a
toll
for
the
fee
tour,
you

know.
So
kind
of
leaning
back
on,
I
guess
some
of
your
consulting
work
and
then
now
what
you're
seeing
with
technologists
and
technical
leaders
inside
enterprises,
you
know,
obviously
a
lot
of
organizations,
most
probably
organizations
are
starting
to
really
look
at
AI
and

recognize
that
there
are
meaningful
implications
that
this
is
going
to
have
on
our
business.
But
what
do
we
ultimately
do
about
it?
What
is
the
strategy?
How
do
we
actualize
that
strategy
and
create
value
for
the
organization?
Is
there
a
common
thread
or

a
primary
set
of
challenges
that
you
see
technology
leaders
face
when
implementing
AI
strategies
in
their
organization?
Yeah,
I
mean,
I
think
that
you
have
to
sort
of
break
down
the
industry
into
its
component
parts
and
you
have
to
break
down
the
technology

at
the
same
time.
So,
you
know,
in
industry,
you're
going
to
prototype
things
and
then
you're
going
to
put
them
into
production.
On
the
technology
side,
we
really
want
to
kind
of
differentiate
between
AI
sort
of
classical
machine
learning,
deep
learning
and
then

this
sort
of
generative
AI
that
we're
talking
about
when
we
talk
about
large
language
models.
Of
course,
there
are
many,
many
fine
lines
there,
but
from
a
what
you
should
be
building
for
your
customers
perspective,
you
know,
you
want
to
understand,
okay,
top

level,
yes,
I
need
to
go
from
prototype
to
production.
Yes,
I
need
to
understand
AI
versus
generative
AI.
But
you
know
what
your
customers
want
and
what
is
going
to
make
their
lives
easier.
And
like
part
of
the
thing
is,
part
of
the

dirty
little
secret
is
like,
well,
most
products
today
that
are
built
do
not
actually
require
AI.
And
you
know,
of
the
ones
that
do
require
AI,
most
of
them
do
not
require
generative
AI.
So
you
end
up
when
you
go
and
you
take

it,
I'm
only
going
to
create
business
value
from
my
customers
perspective.
You
end
up
kind
of
taking
this
unsexy
approach
of
saying,
well,
maybe
I'll
just
do
sort
of
classic
product
management.
Maybe
I'll
do
more
classical
AI
product
management.
But
you
know,
the

board's
asking
about
LLAMs.
Everybody
wants
to
know
what
we're
doing
with
LLAMs.
Chat
GBT
came
out.
Everybody's
freaking
out.
What
are
we
doing
about
it?
It's
important
to
have
something
there.
And
it's
important
to
start
moving
down
this
prototyping
to
production
pathway.
And

so
this
is
where
I'll
sort
of
leave
the
classical
AI
aside
and
talk
about
generative
because
that's
what
people
want
to
hear
about
today.
I
think
one
of
the
things
is
there
are
companies
that
are
good
at
prototyping
already.
They're
great
at
it.

And
they're
sitting
there
and
they're
like,
we
got
these
prototypes.
We're
dangling
the
candy
in
front
of
people
that
are
in
the
company.
They're
like,
man,
what
are
we
waiting
for?
Let's
push
these
things
to
production
and
scale
them
out.
These
are
amazing

applications.
And
there's
a
real
hang
up
there
in
production.
So
these
are
the
financial
industries,
this
is
the
insurance
industry.
This
is
these
are
the
guys
that
have
an
all
digital
product.
So
it's
all
digital.
It's
all
about
the
data.
It
always
has

been,
you
know,
quants
are
the
OG,
ML
and
AI
people.
Making
money
off
and
making
money
has
always
kind
of
led
the
way
here.
So
these
industries
that
build
products
based
on
that
idea
are
still
very
much
leading
the
way.
And
so,
you

know,
when
I
talk
to
folks
from
industries
like
that,
what
you
end
up
hearing
is
going
to
appear.
Well,
a
lot
of
these
challenges
of
going
to
production,
the
infrastructure
for
LLMs
in
production
is
different
than
the
infrastructure
for
AI's
in
production.
It's

classical
AI
in
production.
And
by
the
nature
of
the
large
in
large
language
models.
And
so
you
end
up
like
having
to
figure
out
how
to
get
new
tools.
And
there
are
a
lot
of
these
open
source
edge
tools
that,
you
know,
they're

not
well
supported.
So
in
production,
right,
if
something
breaks
at
1,
2,
3,
4
in
the
morning,
who
are
you
going
to
call
to
make
sure
that
you
can
fix
it?
And
if
the
answer
is,
I
don't
have
anybody
to
call,
well,
we

don't
want
to
go
to
production.
And
this
is
a
very
important
gap
right
now
in
the
industry
that
we're
going
to
continue
to
try
to
create
some
value
for
folks
in
that
space
is
one
of,
is
one
of
our
key
strategic
goals
of

this
year.
So
because
we
believe
that's
the
open
source
edge.
Now,
most
people
are
not
there,
all
right?
Most
people
are
back
in
the
productions
in
the
prototyping
phase.
And
in
the
prototyping
phase,
you
have
to
sort
of
decide
what
should
I
be

building?
Why?
How
am
I
going
to
leverage
tools
like
prompt
engineering,
like
fine
tuning,
like
retrieval
augmented
generation,
bragg?
If
you
can't
sort
of
intelligently
even
speak
about
these
topics,
let
alone
how
they
relate
to
one
another
and
how
they
come
together
holistically

to
create
an
app
that
has
human
level
performance.
That's
aligned
with
your
customers.
That's
giving
a
great
experience.
That's
not
going
to
get
you
in
trouble.
And
you're
not
very
good
at
prototyping
yet.
And
you
should
be
spending
your
energies
and
your
focus

there.
So
I
think
what
you
have
to
do
is
you
have
to
look
across
your
organization.
You
have
to
be
real
honest
about
how
mature
are
we
from
a
technological
standpoint.
Some
industries
are
just
less
mature,
manufacturing,
defense.
They
tend
to
move
slower

and
that's
OK.
Some
other
industries
feel
the
heat
of
competition,
the
insurance,
right?
The
financial,
they're
like,
if
we
don't
get
on
this,
we're
out
of
business.
So
if
you
have
to
look
at
your
industry,
you
have
to
look
at
your
actual
executive

team
and
the
capabilities
you
have
from
a
data
science
and
machine
learning
perspective
now.
And
you
have
to
start
building
on
that
wherever
you
are.
And
whatever
that
looks
like
is
going
to
be
different
for
your
particular
situation.
But
it
always
starts
with

proof
concepts
and
prototypes.
It
always
moves
into
production.
And
you're
always
going
to
have
to
make
that
differentiation
between
classical
machine
learning
deep
learning
and
generative
AI
and
no
AI
at
all.
So
it's
tough
to
answer
the
question
in
general.
But
that's
my

best
right
there.
It's
a
very,
very
useful
framing
and
mental
model
that
helps
kind
of
bifurcate
and
organize
the
different
contexts
that
businesses
or
maybe
the
different
phases
that
businesses
are
ultimately
in.
And
they're
interesting
points
in
both
elements.
I
guess
let's
start

with
the...
Well,
actually,
do
you
have
a
general
sense
or
pulse,
at
least
even
anecdotally
just
based
on
your
experience?
Where
do
the
majority
of
businesses
fall
right
now?
In
the
production
phase
or
the
prototyping
phase?
Bass
majority
of
businesses
are
stuck
in

prototyping.
Very,
very
few
businesses
that
I've
spoken
to
are
actually
out
like...
They're
like,
yeah,
yeah,
we
get
it.
We
understand
how
to
use
all
the
latest
and
greatest
tools.
We're
building
that.
Our
people
understand
it.
The
thing
is
we
have
these
sort

of
like...
Other
infrastructure,
security,
whatever
issues
that
are
halting
me
now
from
creating
massive
value
with
these
tools
tomorrow.
Right?
And
so
that's
the
edge.
Most
people
are
somewhere
getting
started.
One,
two,
three
POCs,
prototypes.
You
really
have
to
sort
of
maybe
get

five
or
ten
that
actually
really
worked
and
you
know
you
want
to
go
to
production
with.
So
it's
kind
of
a
long
road
from
starting
POCs
to
being
ready
to
rock.
Totally,
totally
get
that.
We'll
spend
a
meaningful
amount
of
time
in
that

kind
of
earlier
phase
and
how
you
go
about
approaching
it
to
hopefully
create
as
much
downstream
value
for
customers
as
possible.
Although
I
will
say
that
you
really
nicely
elucidated
some
seemingly
inevitable
challenges
that
companies
will
face
on
the
production
side
of
it,

particularly
as
it
relates
to
skill
gaps
and
capacity
planning
and
all
of
that
to
ensure
that
they're
not
only
able
to
launch
it
in
production
but
maintain
it
and
continue
to
iterate
on
it.
Yeah,
yeah.
The
iteration
has
a
whole
other
piece.
Yeah,

yeah,
yeah.
I'm
glad
I
bet.
Okay,
so
we're
in
the
earlier
part
of
the
journey
as
a
company,
you
know,
really
evaluating.
Okay,
we
know,
well,
we
have
some
early
hypotheses
about
how
we
can
create
value
for
customers.
I
guess
are
there
the

frameworks
with
which
you
would
advise
product
leaders
or
technical
leaders
to
utilize
out
of
the
gate
to
ensure
that
they
are
consistently
orienting
around
customer
value
and
not
kind
of
getting
distracted
by
shiny
objects?
Yeah,
I
mean,
I
mean,
I
would
just,
I

would
start
with,
you
know,
your
last
quarter,
your
last
year's
strategy
and,
you
know,
it's
like,
well,
what
are
some
of
the
initiatives
that
you
have
on
there
that
could
potentially
be
augmented
with
some
of
these
newer
technologies?
You
know,
like
that,
that,

that
sort
of
easiest,
lowest
hanging
fruit.
And
then
one
of
the
other
things
is,
I
mean,
that
I
recommend
to
people
is
like,
go
around
to,
you
know,
your,
your
functional
department
head,
your
functions,
your
departments,
whatever.
You,
you
are,
and
you
ask

people
to
leave
them.
It's
like,
what
are
some
things
that
your
people
like
complain
about
having
to
do
all
the
time
that
are
pretty
monotonous?
Like,
what
are
the
things
that,
you
know,
and
you're
often
like,
it's
a
customer
support,
right?
It's
a,

it's
the
same
question
I'm
answering
over
and
over.
It's
the
same
freaking
pipe
I'm
fixing
10,000
times.
And
the
different
maintenance
person
has
to
figure
it
out
exactly
the
same
way,
even
though
it's
already
been
done
15
times
before.
It's
like,
where
are

you
not
transferring
that
sort
of,
that
sort
of
learned
experience
and
knowledge
to
the
next
person,
the
next
person,
the
next
person?
And
how
can
you
sort
of
automate
that?
Or
what
questions
is
HR
getting
on,
you
know,
policies
constantly,
right?
You
sort

of
question
answering
systems
or
great
sort
of
framework
and
mental
model
of
use.
Like,
where
are
people
asking
questions
that
you
get
the
same
answer
over
and
over,
right?
And,
and,
you
know,
that,
that
to
me
is
probably
the
place
to
start
is,

what's bothering people about what they have to spend time on? That's sort of an internal application thing. So questions are you answering for customers over and over and over? That's sort of the number one external application thing. And then, you know, look in

your
own
strategy,
maybe
you
can
start
there
and
see
what
you
can
come
up
with.
I
love
that.
The,
the
internal
focus
first
feels
like
to
your
point,
lowering
fruit,
safer,
more
reliable.
I
mean,
by
definition,
you
can
talk
directly
to
the
customer,

the
customer
is
part
of
your
organization.
So
probably
a
safer
space
to
be.
You
get,
you
capture
some
fast
wins
and
you
start
to
develop
more
confidence
in
the
muscle
and
in
the
technology
and
you
could
probably
build
on
that
to
some
degree.

Yeah.
Yeah.
And,
and
I
think
like
one
of
the
classic
ones,
even
from
classic
A.I.
was
like
the
auto
quoting
sales
tool,
right?
It's
like,
why
are
we,
why
are
we
still
manually
quoting
people?
Like,
but
can
you
actually
build
something
that
your

sales
team
wants
to
use
is
the
real
question,
right?
Not
that
you're
like
forcing
them
by
hooking
cropped
to
sort
of
like,
no,
you
have
to
pick
this
up
otherwise.
Yeah.
And
so
are
you
actually
building
things
that
people
want?
It's
as
much

either
testing
site
too.
It
always
matters,
man.
Is
this
something
people
actually
want?
And
the
best
way
to
find
out
is
to
go
talk
to
them.
It's
amazing
how
challenging
that
can
be
sometimes
though.
Before
we
dive
into
some
more
specifics
around,
you

know,
data-centric
approaches
and
whatnot.
Overall,
do
you
have
a
sense
of
where
you
think
there
are
real
competitive
advantages
in
A.I.
for
businesses?
I
sense
that,
you
know,
maybe
to
some
degree,
it
looks
very
similar
to
how
it's
historically
looked
or
where
advantages

or
value
opportunities
already
exist
with
customers.
Is
that
kind
of
your
position?
Are
there
nuances
to
that?
Yeah,
I
mean,
like
one
use
case
that
jumps
out
to
me
today
for
enterprise
for
large
businesses
is,
you
know,
one
thing
we
like
to
do

is
we
like
to
go
and
do
events
for
people
and
we'll
go
and
we'll
open
up
their
web
page
and
we'll
show
that
their
web
page
chatbot
is
just
absolutely
garbage,
right?
We'll
ask
it
a
question.
We'll
be
like,
hey,
can
you
answer

this
simple
question
of
this
policy
that
is
clearly
on
your
website
and
I
can
find
on
the
other
page?
And
it
literally
can't
answer
the
question.
And
you're
like,
what's
the
point
of
this
thing?
And
the
answer
is
baked
into
whatever
sort
of

website
creation
thing
that
you
used.
And
that's
sort
of
the
stats
of
these
chatbots.
Yeah.
So
it
always
goes
back
to
chatbots,
right?
So,
you
know,
it's
like
the,
what
you
can
do
today
is
you
can
build
a
simple
retrieval
augment
generation
system.

You
can
web
scrape
your
own
website
and
you
can
build
this
thing
independent
of
your
website
as
a
question
answering
AI
that
returns
a
coherent
answer
and
also
returns
you
specific
links
to
exact
reference
information
and
documentation
where
you
found
it.
Now,
this

is
sort
of
level
one.
But
what
you
want
to
think
about
is
when
your
customer
asks
a
question
into
a
live
chat,
what's
the
person
actually
doing?
They're
coming
in
and
they're
saying,
well,
let
me
see,
what
exactly
have
we
done
with
Evan

before?
Let
me
look
and
see
what
his
entire,
what
products
has
he
bought
for
us?
How
many
times
he's
called
support?
What's
Evan
in
his
general
demeanor
towards
us
like?
How
should
we
be
engaging
with
him?
How
could
we
potentially
upsell
or
what

could
we
potentially
do
right
now
to
make
his
life
a
little
easier
or
better?
Like,
there's
a
complex
sort
of
meta
problem
amongst
all
possible
Evan's
and
Greg's
that
people
have
ever
had
in
their
customer
base,
right?
And
the
thing
is
like,
if

you
don't
go
and
you
don't
start
building
your
own
solution
to
this
today,
what's
going
to
happen
is...